2

VISUAL ELEMENTS OF ART

I found I could say things with color and shapes that I couldn't say in any other way—things I had no words for.
—Georgia O'Keeffe

Color and shape are but two of the visual elements of art. The language of art is the language of our visual and tactile experiences in the world, and the words or vocabulary of this language consist of the visual elements of *line, shape, light, value, color, texture, space, time,* and *motion.* Line can define shape; light can reveal it. Color can describe the world we see around us and reveal the psychological worlds within us; we are blue with sorrow, red with rage. Texture is linked with all the emotion of touching, with the cold sharpness of rock or the yielding sensations of flesh. We exist in space; we occupy space and space envelops us. Time allows us to develop into what we are capable of being; time ultimately takes from us what we have been. We are all in motion through space, in a solar system that is traversing the rim of our galaxy at thousands of miles per second, or rotating on the surface of our own globe at a thousand miles per hour. Yet it is the smaller motion—the motion of lifting an arm or of riding through a field—that we are more likely to sense and hence to represent in art.

FRANK GEHRY, Guggenheim Museum, Bilbao, Spain. (1997). Façade.

This vocabulary—*line, shape, light, value, color, texture, space, time,* and *motion*—comprises what we call the **visual elements** or **plastic elements** of art. Artists select from a variety of mediums, including, but by no means limited to, drawing, painting, sculpture, architecture, photography, textiles, and ceramics. They then employ the visual elements of art to express themselves in the chosen medium. In their self-expression, they use these elements to design compositions of a certain style, form, and content.

Visual elements, design, style, form, and content—these make up the language of art. Languages such as English and French have symbols—words—that are combined according to rules of grammar to create a message. The visual arts have a "vocabulary" of visual elements that are combined according to the "grammar" of art, or principles of design. These principles include unity, balance, rhythm, scale, and proportion, among others. The composition of the elements creates the style, form, and content of the work—even if this content is an abstract image and not a natural subject, such as a human figure or a landscape. In this chapter, we explore the basic vocabulary or visual elements in the language of art.

LINE

Line is at once the simplest and most complex of the elements of art. It serves as a basic building block around which an art form is constructed and, by itself, has the capacity to evoke thought and emotion. In geometry, we learn that line is made up of an infinite number of points and that the shortest distance between two points is a straight line. In art, a line is more commonly defined as a moving dot.

Characteristics of Line

Measure of Line

The **measure** of a line is its length and its width. If we conceptualize line as a moving dot, the dots that compose it can be of any size, creating a line of lesser or greater width, and of any number, creating a shorter or a longer line.

Some works of art, such as Sol LeWitt's *Lines from Four Corners to Points on a Grid* (Fig. **2-1**), have lines whose measures are carefully devised. LeWitt's lines are so precise and mathematical that he was acutely conscious of their measure. The act of measuring to create exact mathematical relationships seems to be intrinsic to the work—or is the work. LeWitt's installations are temporary; their "ownership" means possession of a set of instructions for reproducing them. The Whitney Museum of American Art owns the work (the instructions), but once placed it (the instructions) "on loan" to the Museum of Modern Art.

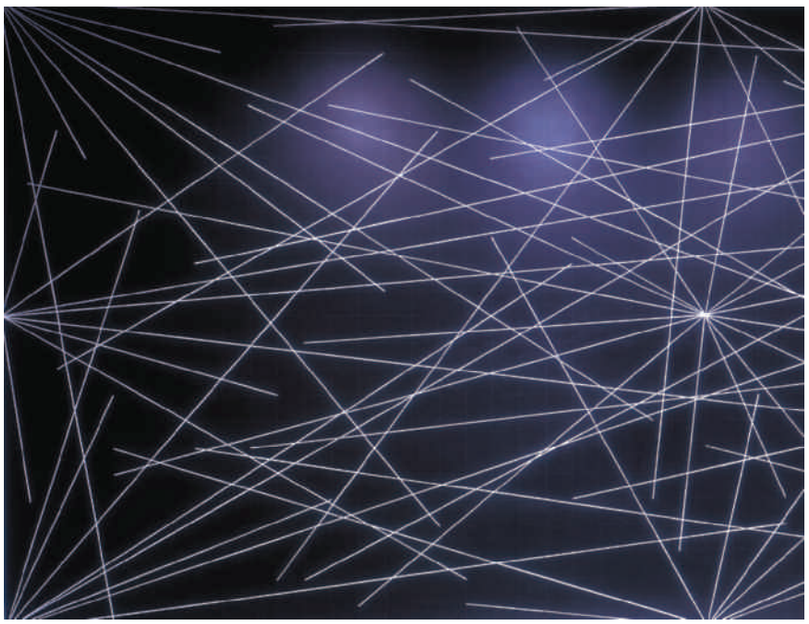
By contrast, the notion of measuring the lengths of line that are both the subject and the process of Jackson Pollock's *Number 14: Gray* (Fig. **2-2**) seems ludicrous and incomprehensible. Pollock's lines weave and overlap and swell and pinch, creating a sense of infinite flow and freedom from constraint (where constraint is defined as logical and mathematical measurement). LeWitt's lines are precise; Pollock's are gestural, fluid, and loose. The effects of the LeWitt and the Pollock are very different. The LeWitt is static; the Pollock expands and contracts, shoots forward and recedes.

Expressive Qualities of Line

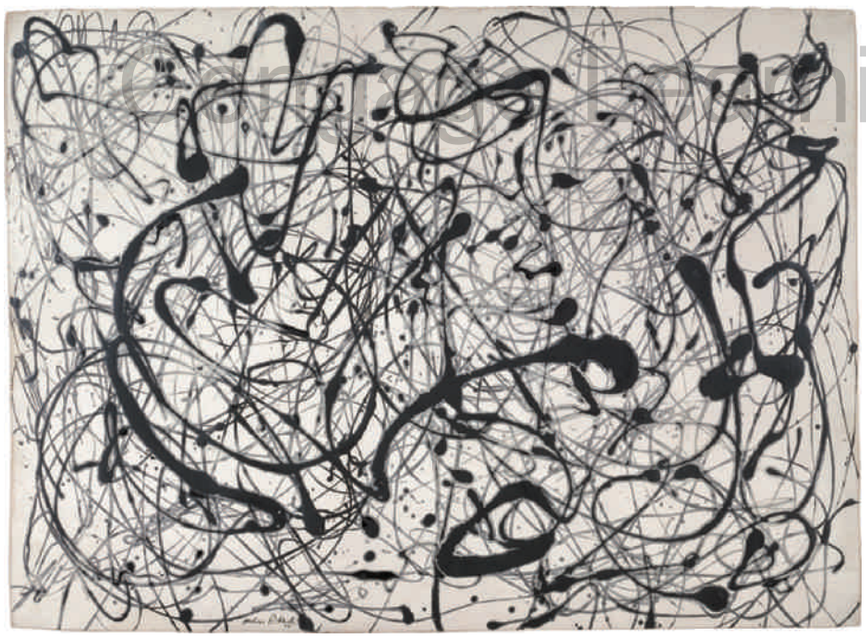
The works by LeWitt and Pollock also reveal the expressive characteristics of line. Lines may be perceived as delicate, tentative, elegant, assertive, forceful, or even brutal. The lines in the LeWitt installation are assertive but cold. The emotional human element is missing. The work seems to express the human capacity to detach the intellect from emotional response, and perhaps to program computers (and other people) to carry out precise instructions. The lines in the Pollock work combine the apparently incongruous expressive qualities of delicacy and force. They are well rounded and human, combining intellect with passion. The LeWitt suggests the presence of a plan. The Pollock suggests the presence of a human being weaving elegantly through the complexities of thought and life.

Types of Line

The variety of line would seem to be as infinite as the number of points that, we are told, determine it. Lines can be straight or curved. They can be vertical, horizontal, or diagonal. A curved line can be circular or oval. It can run full circle to join itself where it began, thereby creating a complete shape. Curved lines can also be segments or arcs—parts of circles or ovals. As a line proceeds, it can change direction abruptly: A straight line that stops

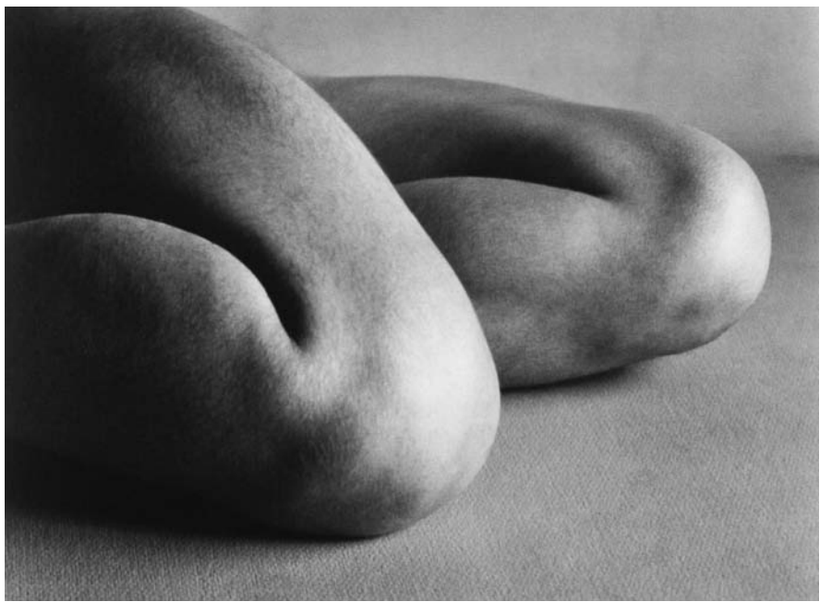


2-1 SOL LEWITT.
Lines from Four Corners to Points on a Grid (1976), detail.
A 6-inch (15 cm) grid covering each of four black walls. White lines to points on grids. First wall: 24 lines from the center; second wall: 12 lines from the midpoint of each of the sides; third wall: 12 lines from each corner; fourth wall: 24 lines from the center; 12 lines from the midpoint of each of the sides, 12 lines from each corner. White crayon lines and black crayon grid on black walls. Dimensions variable.
Whitney Museum of American Art, purchase, with funds from the Gillman Foundation, Inc. (78.1.-4). ©2009 The LeWitt Estate/Artists Rights Society (ARS), New York.



1 in.

2-2 JACKSON POLLOCK.
Number 14: Gray (1948).
Enamel and gesso on paper. 22¾" × 31".
Image ©Yale University Art Gallery/Art Resource, NY. ©2009 The Pollock-Krasner Foundation/ Artists Rights Society (ARS), New York.



1 in.

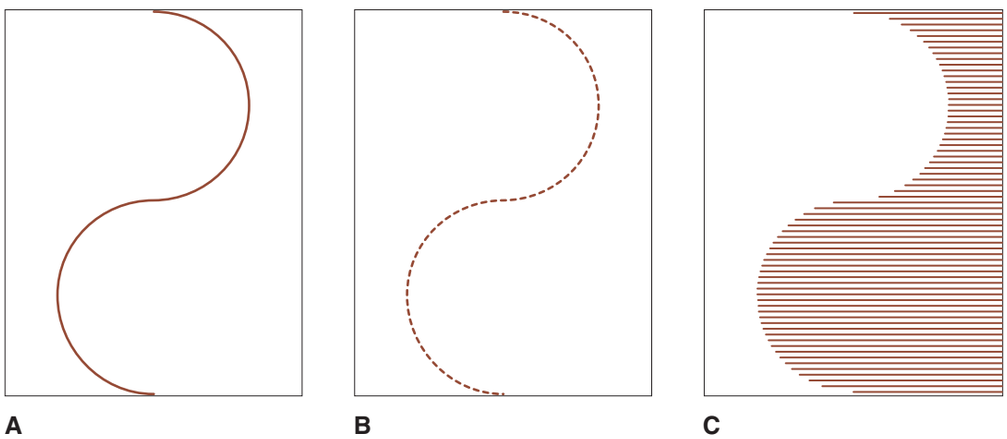
2-3 EDWARD WESTON.
Knees (1927).
Gelatin silver print. 6¼" × 9⅜".
Image: San Francisco Museum of Modern Art, San Francisco, CA. Alan M. Bender Collection. Bequest of Alan M. Bender. ©1981 Center for Creative Photography, Arizona Board of Regents

and changes course becomes a zigzag. A curved line that forms an arc and then reverses direction becomes wavy. Circular and oval lines that turn ever inward on themselves create vertiginous spirals. Art's most basic element is a tool of infinite variety.

Contour lines are created by the edges of things. They are perceived when three-dimensional shapes curve back into space. Edges are perceived because the objects differ from the backgrounds in value (lighter versus darker), texture, or color. If you hold up your arm so that you perceive it against the wall (or, if you are outside, the sky), you will discriminate its edge—its contour line—because the wall is lighter or darker, because it differs from the wall in color, and because the texture of flesh differs from the wallboard or plaster or wood or brick of the wall.

Edward Weston's photograph *Knees* (Fig. **2-3**) highlights the aesthetic possibilities of contour lines. Weston was drawn to the sculptural forms of the human figure, plant life, and natural inanimate objects such as rocks. In *Knees*, the contour lines (edges) of the legs are created by the subtle differences in value (light and dark) and texture between the legs and the wall and the floor. The legs take on the abstract quality of an exercise to demonstrate how contour lines define the human form and how shading creates or *models* roundness.

Actual line can be distinguished from *implied line*. The points in **actual line** are connected and continuous. The LeWitt (Fig. 2-1) and Pollock (Fig. 2-2) are examples of works with actual line. Works with **implied line** are completed by the viewer. An implied line can be a discontinuous line that the viewer reads as continuous because of the overall context of the image. Implied lines can be suggested by a series of points or dots, as in Part B of Figure **2-4**. They



2-4 **A, B, and C** Actual line (A) versus two kinds of implied lines, one formed by dots (B) and the other formed by psychologically connecting the edges of a series of straight lines (C).

2-5 LEONARDO DA VINCI.
Madonna of the Rocks (1483).
Oil on panel, transferred to canvas. 78½" × 48".
Louvre Museum, Paris

2-6 The pyramidal structure of the *Madonna of the Rocks*.

can be suggested by the nearby endpoints of series of parallel or nearly parallel lines of different lengths, as in Part C of Figure **2-4**. The movements and glances of the figures in a composition also imply lines.

One of the hallmarks of Renaissance paintings is the use of implied lines to create or echo the structure of the composition. Geometric shapes such as triangles and circles are suggested through the use of linear patterns created by the position and physical gestures of the participants and, often, glances between them. These shapes often serve as the central focus and the main organizational device of the compositions. In the *Madonna of the Rocks* (Fig. **2-5**), Leonardo da Vinci places the head of the Virgin Mary at the apex of a rather broad, stable pyramid formed not by actual lines but by the extension of her arms and the direction of her glance. The base of the pyramid is suggested by an implied line that joins the "endpoints" of the baby Jesus and the infant John the Baptist. Figure **2-6** highlights the pyramidal structure of the composition.

A mental or perceptual connection can create a **psychological line**. If a character in a painting points to an object, or if one figure gazes directly toward another—as in Emily

1 ft.

2-7 EMILY MARY OSBORN. *Nameless and Friendless* (1834–?). Oil on canvas. 34" × 44". ©Private Collection/The Bridgeman Art Library

Mary Osborn's *Nameless and Friendless* (Fig. **2-7**)—we perceive the connection between the two as a psychological line, even though the artist has not created an actual or implied line. In Osborn's painting, which represents the plight of the woman artist, a small boy (her brother?) stares directly at the condescending art dealer as he feigns serious consideration of her work. The boy's unflinching glance and the dealer's face are visually connected with a psychological line. Another psychological line connects the downward face of the impoverished woman with the tip of her shoe, which emerges from the bottom of her long, black skirt. She stands in judgment, fidgeting with the fringe of her shawl, not quite knowing where to look. Gestures and glances such as those in Osborn's work lead the viewer's eye around the composition. As such, psychological lines are also called compositional lines.

Functions of Line

The line, as an element of art, is alive with possibilities. Artists use line to outline shapes, to evoke forms and movement, to imply solid mass, or for its own sake. In groupings, lines can create shadows and even visual illusions.

To Outline and Shape

When you make or observe an outline, you are describing or suggesting the edge of a form or a shape. Line defines a shape or form as separate from its surrounding space; line gives birth to shape or form. Line grants them substance.

In addition to defining shape, line can also function as form itself. *Madonna and Child* (Fig. **2-8**) by Rimma Gerlovina and Valeriy Gerlovin is a revision of one of the most popular religious themes of the Renaissance. Taking their cue from works by artists such as Raphael, the Gerlovins use their signature combination of the body and braided hair to embroider a contemporary image of the Virgin Mary and the infant Jesus. The Gerlovins are the principal subjects of their work, and in this piece Gerlovina serves as the model for the Virgin. Braid extensions of her own sandy brown hair cascade from a sculptural head whose three-dimensionality stands in marked contrast to the flatness of the rippling braids. These braids flow into the

2-8 RIMMA GERLOVINA AND VALERIY GERLOVIN.
Madonna and Child (1992).
Chromogenic print.

contours of the Christ-child's body, nested in the palm of a sculpted hand.

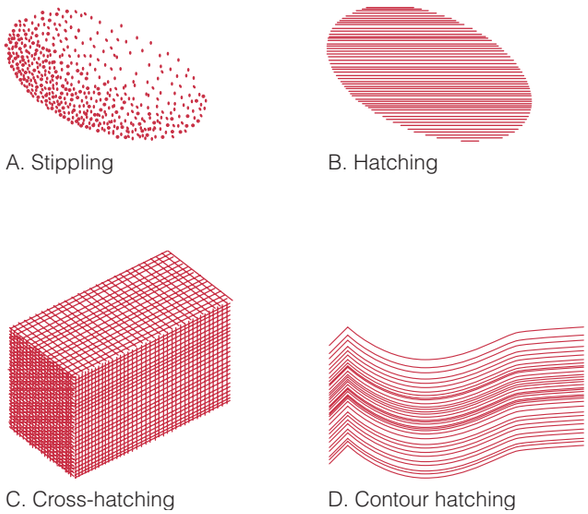
To Create Depth and Texture

The face of Elizabeth Catlett's sturdy *Sharecropper* (Fig. **2-9**) is etched by a series of short, vigorous lines that are echoed in the atmosphere that surrounds her. The lines give the woman's features a gaunt, hollowed-out look and are also used to create a harsh texture in a turbulent environment. The textures of her garment, hair, and hat are also represented by series of lines.

1 in.

2-9 ELIZABETH CATLETT.
Sharecropper (1968).
Color linocut. 26" × 22".

2-10 Illusion of three-dimensionality.
Dots and lines can be used to create the illusion of three-dimensionality through shading. Part A shows the method of stippling, in which shading is represented by a pattern of dots that thickens and thins. Part B represents shading by means of hatching—that is, using a series of closely spaced parallel lines. Part C shows the method of cross-hatching, in which the series of lines intersects another series of lines. Part D shows how directional changes in hatching can define contours.



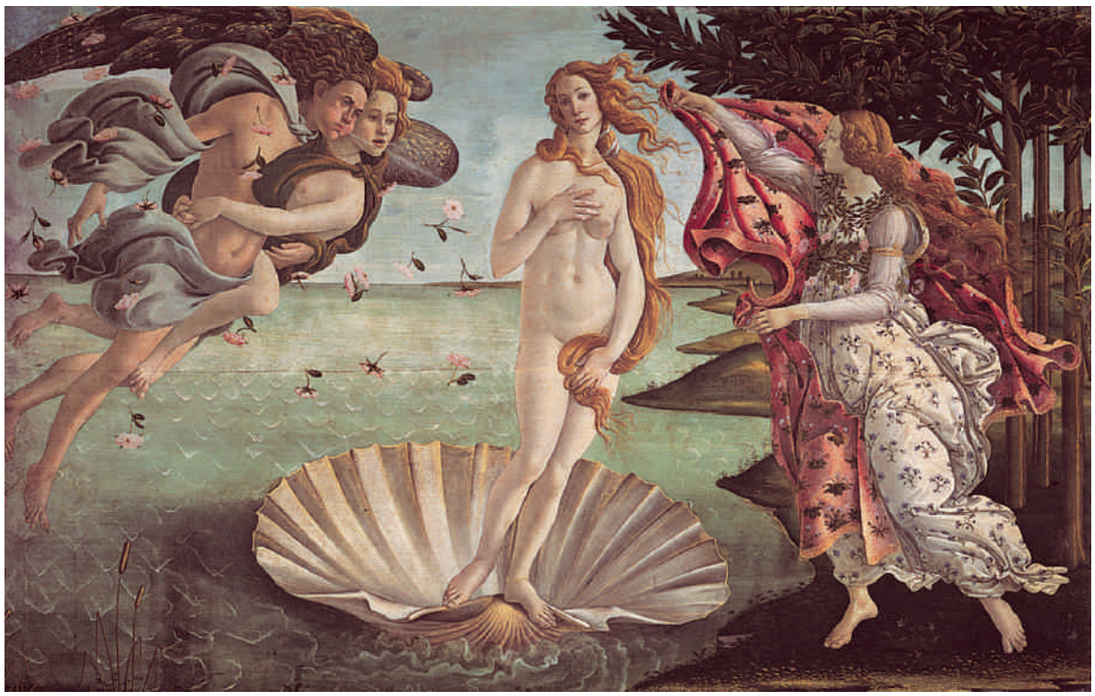
Modeling on a two-dimensional surface is the creation of the illusion of roundness or three dimensions through the use of light and shadow. As shown in Figure **2-10**, shadows can be created by the use of dots and lines. Part A shows the method of **stippling**, of using a pattern of dots that thickens and thins. Areas where the dots are thicker are darker and create the illusion of being more shaded. Part B shows the technique of **hatching**, or using a series of closely spaced parallel lines to achieve a similar effect. Areas in which lines are closer together appear to be more shaded. **Cross-hatching**, shown in Part C, is similar to hatching, but as the name implies, a series of lines run in different directions and cross one another.

Contours can be created when hatching changes direction, as in Part D. Notice how the sharecropper's face is carved by hatching that alters direction to give shape to the wells of the eyes, the nose, the lips, and the chin. Directional changes in hatching also define the prominent anatomic features of the sharecropper's neck.

To Suggest Direction and Movement

Renaissance artist Sandro Botticelli's *The Birth of Venus* (Fig. **2-11**) shows how line can be used to outline forms and evoke movement. In this painting, firm lines carve out the figures from the rigid horizontal of the horizon and

2-11 SANDRO BOTTICELLI.
The Birth of Venus (c. 1482).
Oil on canvas. 5'8⅝" × 9'1⅞".



1 in.

2-12 JACOB LAWRENCE.
Harriet Tubman Series, No. 4 (1939–1940).
Casein tempera on gessoed hardboard. 12" × 17⅞".
Hampton University Museum, Hampton, VA. ©2009 The Jacob and Gwendolyn Lawrence Foundation, Seattle/Artists Rights Society (ARS), New York

the verticals of the trees. Straight lines carry the breath of the Zephyr from the left, and the curved lines of the drapery imply the movement of the Zephyrs and of the nymph to the right. Implied compositional lines give this work an overall triangular structure.

Horizontal lines, like horizon lines, suggest stability. Vertical lines, like the sweeping verticals in skyscrapers, defy gravity and suggest assertiveness. Diagonal lines are often used to imply movement and directionality, as in the directionality and movement of the breath of the Zephyr in *The Birth of Venus*. African American artist Jacob Lawrence used assertive sticklike diagonals to give the slave children in his painting *Harriet Tubman Series, No. 4* (Fig. **2-12**) a powerful sense of movement and directionality. While the horizon line provides a somewhat stable world, the brightly clad children perform acrobatic leaps, their branchlike limbs akin to the wood above. The enduring world implied by the horizon is shattered by the agitated back and forth of the brushed lines that define ground and sky. Such turmoil presumably awaits the children once they mature and realize their lot in life.

SHAPE, VOLUME, AND MASS

The word *shape* has many meanings. Parents or teachers may tell you to "shape up" when they are concerned about your behavior. When you started arranging things in your dorm room or apartment, you may have had thoughts as things began to "take shape." Such expressions suggest "definition"—that is, pulling things together within defined boundaries to distinguish them from what surrounds them. We say our bodies are "out of shape" when they violate our preferred physical contours. In works of art, **shapes** are defined as the areas within a composition that have boundaries that separate them from what surrounds them; shapes make these areas distinct.

Shapes are formed when intersecting or connected lines enclose space. In Botticelli's *The Birth of Venus* and in the Lawrence painting, for example, shape is clearly communicated by lines that enclose specific areas of the painting. Shape can also be communicated through patches of color or texture. In three-dimensional works, such as sculpture and architecture, shape is discerned when the work is

The more basic the color, the more inward: the more pure.

—PIET MONDRIAN

viewed against its environment. The edges, colors, and textures of the work give it shape against the background. Piet Mondrian's *Composition with Red, Blue, and Yellow* (Fig. **2-13**) features colorful geometric shapes—rectangles of various dimensions—that are created when vertical and horizontal black lines slice through the canvas space and intersect to define areas distinct from the rest of the surface.

The word **form** is often used to speak about shape in sculpture or architecture—three-dimensional works of art. Helene Brandt's *Mondrian Variations, Construction No. 3B with Four Red Squares and Two Planes* (Fig. **2-14**) is a translation of Mondrian's composition into three dimensions. Therefore, some artists and people who write about art might prefer to speak of the *form* of the Brandt sculpture rather than its shape. Others use the word *shape* to apply to both two-dimensional and three-dimensional works of art. We will use the terms interchangeably.

2-14 HELENE BRANDT.
Mondrian Variations, Construction No. 3B with Four Red Squares and Two Planes (1996).
Welded steel, wood, paint. 22" × 19" × 17".
Courtesy of the artist.

2-13 PIET MONDRIAN.
Composition with Red, Blue, and Yellow (1930).
Oil on canvas. 18⅛" × 18⅛".

The word **volume** refers to the mass or bulk of a three-dimensional work. The volume of a work is the amount of space it contains. In geometry, the volume of a rectangular solid is computed as its length times its width times its height. But one might use the concept more loosely to say that a structure has a great *volume* as a way of generally describing its enormity. Gerrit Rietveldt's Schroeder House in Utrecht (Fig. **2-15**) seems to be a volumetric translation of Mondrian's geometric shapes. Here is an example of the usefulness of the term *volume* as it conveys a sense of containment.

2-15 GERRIT RIETVELDT.
Schroeder House, Utrecht (1924).
Image ©Jannes Linders. ©2009 Artists Rights Society (ARS), New York/Pictoright, Amsterdam.

Mass

Like volume, the term *mass* also has a specific meaning in science. In physics, the mass of an object reflects the amount of force it would require to move it. Objects that have more mass are harder to budge. In three-dimensional art, the **mass** of an object refers to its bulk. A solid work made of steel with the same dimensions as Helene Brandt's sculpture would have more mass.

We would be hard-pressed to conjure a better exemplar of mass than Rachel Whiteread's Holocaust Memorial in Vienna (Fig. **2-16**). It possesses the gravity of a stone pyramid and evokes the simplicity and serenity of a mausoleum. Built of concrete and weighing 250 tons, the memorial is designed as an inverted library—the "books" protrude on the outside—in recognition of the significance of study to the Jewish people,

2-16 RACHEL WHITEREAD.
Holocaust Memorial, Vienna (2000).
©Reuters/CORBIS.

2-17 MARK TANSEY.
Landscape (1994).
Oil on canvas. 181.6 cm × 365.8 cm.

"the people of the book." But the doors to this "library" are bolted, making the books inaccessible. In the wake of the destruction of the Austrian Jewish community, there is no longer any use for them. The names of the places to which the country's Jews were deported for annihilation are inscribed in alphabetical order around the exterior. There is murder, death, and loss here, and the massiveness of the memorial shapes a sense of gloom that cannot be lifted.

Actual Mass versus Implied Mass

The Whiteread Memorial has **actual mass**. It occupies three-dimensional space and has measurable volume and weight. Objects that are depicted as three-dimensional on a two-dimensional surface (such as a drawing or a painting) have what we call **implied mass**. That is, they create the illusion of possessing volume, having weight, and occupying three-dimensional space. Consider a two-dimensional work of art that features massive shapes, broken and fragmented and piled in a pyramidal shape, like so much fuel for a funeral pyre of art's historical icons. In *Landscape* (Fig. **2-17**), Mark Tansey meticulously portrays the remnants of colossal sculptures amid the unending sands of a bleak desert. His realistic style gives the illusion of three dimensions on the two-dimensional canvas surface and implies the extraordinary mass of the oversized stone figures. In the painting, the shapes have implied mass, whereas the sculptures they reference, in reality, have actual mass.

Types of Shape

Shapes that are found in geometric figures such as rectangles and circles are called **geometric shapes**. Geometric shapes are regular and precise. They may be made up of straight (rectilinear) or curved (curvilinear) lines, but they have an unnatural, mathematical appearance. Shapes that resemble organisms found in nature—the forms of animals and plant life—are called **organic shapes** and have a natural appearance. Most of the organic shapes

found in art are soft, curvilinear, and irregular, although some natural shapes, such as those found in the structure of crystals, are harsh and angular. Artists also work with *biomorphic* and *amorphous* shapes.

Geometric shapes can be **rectilinear** when straight lines intersect to form them. Geometric shapes can also be **curvilinear** when curving lines intersect to form them or when they circle back to join themselves and make up closed geometric figures. Geometric shapes frequently look crisp, or hard-edged. David Smith explored the relationships among diverse geometric shapes such as cylinders, cubes, and disks in works such as *Cubi XVIII* (Fig. **2-18**). His *Cubi* series represents nothing found in nature. Rather, they are abstract geometric concepts rendered in steel.

Frank Gehry, the architect of the Guggenheim Museum in Bilbao, Spain (Fig. **2-19**), refers to his work as a "metallic flower." Others have found the billowing, curvilinear shapes to be reminiscent of ships, linking the machine-tooled structure that is perched on the water's edge to the history of Bilbao as an international seaport. It is as if free-floating geometric shapes have collided on this site, and on another day, they might have assumed a different configuration.

2-18 DAVID SMITH.
Cubi XVIII (1964).
Polished stainless steel. 9' 7¾" × 5' × 1' 9¾".
Museum of Fine Arts, Boston. Gift of Susan W. and Stephen B. Paine, 68.280. Photograph ©2009 Museum of Fine Arts, Boston. Art ©Estate of David Smith/ Licensed by VAGA, New York, NY

2-19 FRANK GEHRY.
Guggenheim Museum, Bilbao, Spain (1997).
©E. Streichan/Zefa/CORBIS

Picasso's *Les Demoiselles d'Avignon* with Colescott's *Les Demoiselles d'Alabama: Vestidas*

IN THE YEAR 1907, A YOUNG PABLO PICASSO unveiled a painting that he had been secretly working on for a couple of years. A culmination of what was known as his Rose Period, this new work—*Les Demoiselles d'Avignon* (Fig. **2-20**)—would turn the tide of modern painting. Picasso had studied the work of African and Iberian artists in Parisian museums and galleries. He was struck by the universality of the masks, believing that their rough-hewn, simplified, and angular features crossed time and culture. This painting launched the movement called Cubism, which geometricizes organic forms. The contours of the body in *Demoiselles* are harsh and rectilinear, forming straighter lines than are found in nature. The women in the painting are expressionless and lack identity; some of them even have rectilinear masks in lieu of faces. The intellectual exercise of transforming the human form into geometric shapes takes precedence over any interest in expressing the plight of these women, who are prostitutes in the French underworld. The "figures" in the work transcend the period and culture in which the women lived and worked.

You have probably heard the expression "Clothing makes the man." In Robert Colescott's *Les Demoiselles d'Alabama: Vestidas* (Fig. **2-21**), it could be argued that clothing makes the woman. The women in Picasso's painting are dehumanized in part by their nudity. The subjects of Colescott's painting, executed some 80 years later, are given strong individuality by their choice of costume. Colescott's painting is one of the thousands of instances in which one artist transforms the work of another in a certain way to make a certain point. Picasso's nudes have a harsh and jagged quality that gives an overall splintered effect to his work; the movement of the women seems to be abrupt and choppy. By contrast, Colescott's women are well rounded (in the literal sense) and fleshy—they are natural, organic, "real" counterparts to Picasso's geometry. The flowing, curvilinear lines of the women cause them to undulate across the canvas with fluid movement.

Whereas Picasso's rectilinear women are timeless (and "placeless"), the curvilinear, clothed women of Colescott are very much tied to their time and place—an American South full of life and spontaneity and emotional expression. Whereas Picasso seemed to relish the intellectual transformation of the prostitutes into timeless figures, Colescott seems to revel in the tangibility and sensuality of his sexy subjects. ■

2-20 PABLO PICASSO.
Les Demoiselles d'Avignon (1907).
Oil on canvas. 8' × 7' 8".
Museum of Modern Art, New York. Acquired through the Lillie P. Bliss Bequest.
Digital Image ©The Museum of Modern Art/Licensed by SCALA/Art Resource, NY
©2009 Estate of Pablo Picasso/Artists Rights Society (ARS), New York

2-21 ROBERT COLESCOTT.
Les Demoiselles d'Alabama: Vestidas (1985).
Acrylic on canvas. 96" × 92".
Collection of Hanford Yang, New York, courtesy Phyllis Kind Gallery

Elizabeth Murray's *Tangled Fall* (Fig. **2-22**) is reminiscent of any number of bodily organs or underwater life—although no medical student or botanist could ever quite place it according to kingdom, phylum, and so on. The shape looks rawly excised from some creature. The interlacing tubes are reminiscent of veins and capillaries carrying who knows what (or who wants to know what). Such imagery is said to have a biomorphic shape—that is, it has the form (the Greek *morphē*) of biological entities. Rather than have strictly defined shapes, whose boundaries are unyielding, biomorphic shapes seem to ebb and flow, expand and contract, or metamorphose as directed by some inner life force.

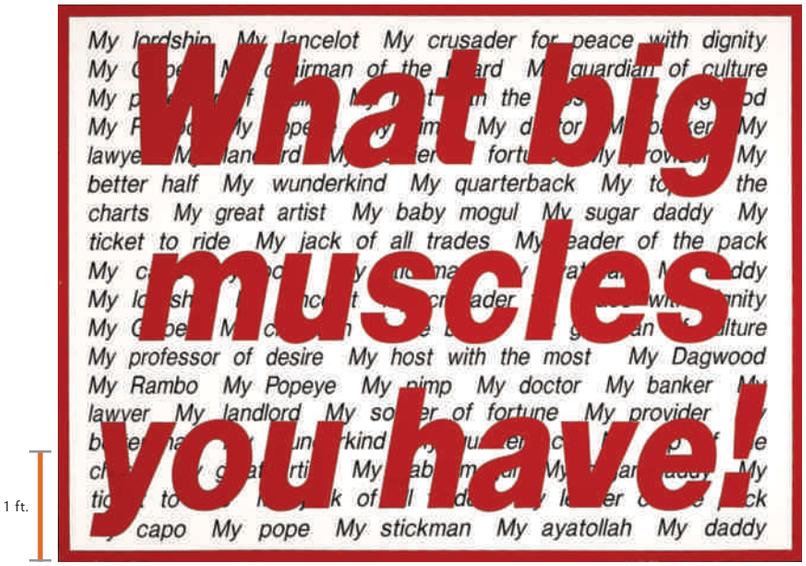
Shapes need not be clearly defined or derived from nature or the laws of geometry. Many artists, such as the contemporary painter Helen Frankenthaler, create **amorphous** shapes. In *Bay Side* (Fig. **2-23**), Frankenthaler literally poured paint onto her canvas, creating a nebulous work that is dense in form and rich in texture. The "contents" of the loosely defined shapes spill beyond their boundaries, filling the canvas with irregularly shaped pools of poured paint.

2-22 ELIZABETH MURRAY.
Tangled Fall (1989–1990).
Oil on canvas. 83½" × 66" × 19".

2-23 HELEN FRANKENTHALER.
Bay Side (1967).
Acrylic on canvas.

Time is not just a mental concept or a mathematical abstraction in the salt desert of Utah's great basin. It can also take on a physical presence.

—NANCY HOLT



1 ft.

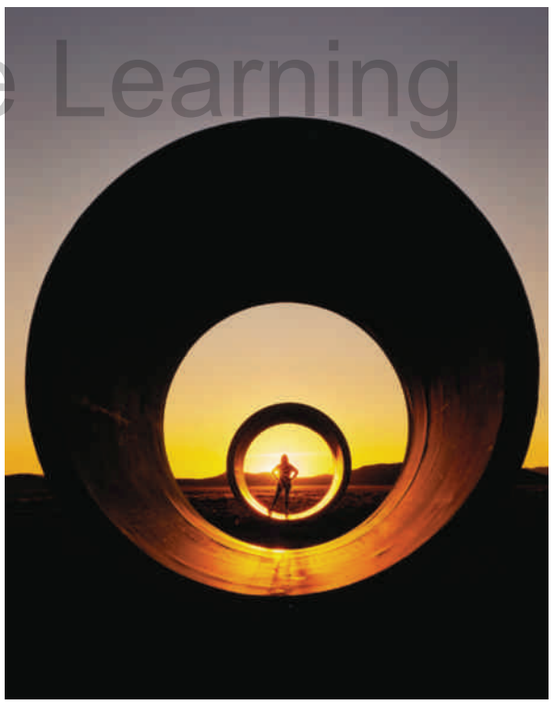
2-24 BARBARA KRUGER.
Untitled (What Big Muscles You Have!) (1985).
Photograph. 60" × 80".
Image ©CNAC/MNAM/Reunion des Musees Nationaux/Art Resource, NY.
Courtesy Mary Boone Gallery

Positive and Negative Shapes

Viewers usually focus on the objects or figures represented in works of art. These are referred to as the **positive shapes**. Whatever is left over in the composition, whether empty space or space filled with other imagery, is termed the **negative shape** or shapes of the composition.

Positive and negative shapes in a work of art have a **figure–ground relationship**. The part or parts of the work that are seen as what the artist intended to depict are the figure, and the other parts are seen as the ground, or background. Barbara Kruger's *Untitled What Big Muscles You Have!* (Fig. **2-24**) illustrates that the figure and ground can be distinct even when the relationship between the two is not so clear-cut. Against a satirical running text of the mindless mantra of a hero-worshiper, Kruger sums up the litany with the proclamation "What big muscles you have!" The viewer identifies the larger type as figure and the smaller type of the running text as ground. Notice the visual tension between the large and small type. As we read the larger type, our eye shifts to the pattern and flow of the words behind, and vice versa. The smaller type serves as a kind of psychological wallpaper, signifying one of the horrors of an age of male supremacy that Kruger hopes we left behind in the last millennium.

For many sculptors, negative shapes, or open spaces, are part and parcel of their compositions. The positive shapes in Nancy Holt's *Sun Tunnels* (Fig. **2-25**) consist of the huge concrete pipes she placed in the Utah desert. But the views framed by looking through the interiors of these massive structures—the voids, or negative shapes—have as much or more meaning than the solids. The flow



2-25 NANCY HOLT.
Sun Tunnels (1973–1976).
Concrete. Great Basin Desert, UT.
Image ©Scott T. Smith/CORBIS. Art © Nancy Holt/
Licensed by VAGA, New York, NY

2-26 A Rubin vase.
Gestalt psychologists use this drawing to illustrate the fact that humans tend to perceive objects within their context. When we focus on the vase, it is the figure, and the white shapes to the sides are part of the ground. But when we focus on the "profiles of heads" suggested by the white shapes where they intersect with the sides of the vase, the vase becomes the ground. The drawing is ambiguous; that is, it can be perceived in different ways. As a result, the viewer may experience figure–ground reversals.

of air and light through the pipes—the "sun tunnels"—lends them a lightness of being that contrasts with their actual mass. The artist has, in effect, enlisted the sun as an element in her composition.

Gestalt psychologists have noted that shapes can be ambiguous, so as to encourage **figure–ground reversals** with viewers. Figure **2-26** shows a Rubin vase, which is a classic illustration of figure–ground reversals found in psychology textbooks. The central shape is that of a vase, and when the viewer focuses on it, it is the figure. But "carved" into the sides of the vase are the shapes of human profiles; when the viewer focuses on them, they become the figure and the vase becomes the ground. The point of the Gestalt psychologists is that we tend to perceive things *in context*. When we are focusing on the profiles, the vase is relegated to be perceived as ground, not figure.

The Rubin vase and other psychological illusions were favorite subjects for the contemporary artist Jasper Johns. His painting *Spring* (Fig. **2-27**) shows Rubin vases on a flat canvas with muted colors, among human figures and other fragments of the psychological mind. The askew vases are ambiguous, encouraging figure–ground reversals. The shadowed vase beneath them in the center right is given more prominence by its implied three-dimensionality, and therefore the viewer is not as encouraged to perceive profiles in the negative shapes to its sides. Psychology buffs will also find a well-known drawing of a younger/older woman in the purple space just below the shadowed vase. Can you see why this drawing is ambiguous and allows the viewer's perceptions to shift back and forth so that now one sees a younger woman and now an older woman?

2-27 JASPER JOHNS.
Spring (1986).
Encaustic on canvas, 75" × 50".

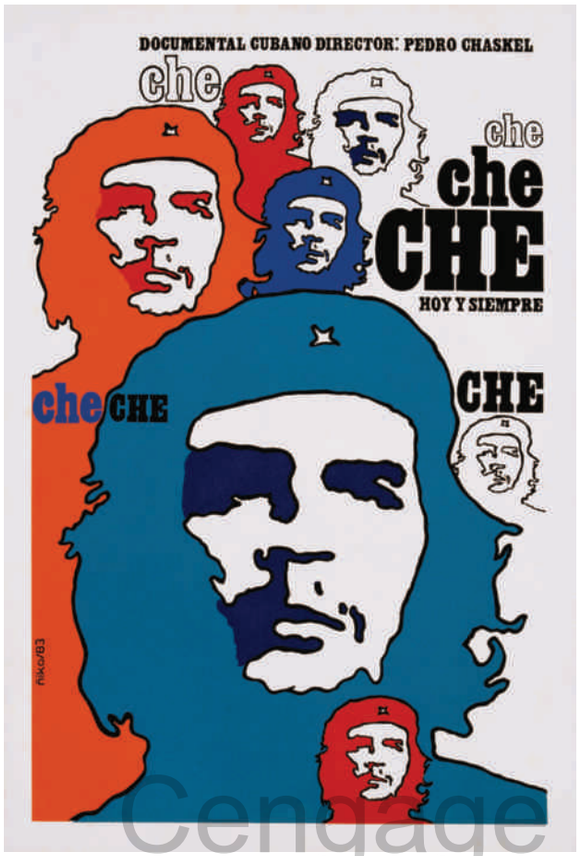
2-28 EDWARD STEICHEN. *Rodin with His Sculptures "Victor Hugo" and "The Thinker"* (1902). Carbon print, toned.

Edward Steichen's photograph of the sculptor Auguste Rodin silhouetted against his sculpted portrait of Victor Hugo (Fig. **2-28**) creates a visual limbo between figure and ground. The eye readily perceives the contours of the face of Rodin sitting opposite his bronze sculpture of *The Thinker*, also set against the Hugo sculpture. The viewer's sense of what is a positive shape and what is a negative shape undergoes reversals, as the white-clouded image of the background work seems to float toward the viewer. The spectrelike image of Hugo hovers between and above the dark images, filling the space between them and pushing them visually into the background.

Shape as Icon

Some shapes have entered our consciousness in such a way as to carry with them immediate associations. They are never mistaken for anything else. We could say that they have become cultural icons in the same way that an icon of an opening folder in the toolbar of a word-processing program signifies "Click here to view a list of your files." Some of these images have symbolic resonance that raises them above their actual configuration. Consider the Christian Cross, the Jewish Star of David, or the Chinese symbol of yin yang.

Based on what has been called the most famous photograph in the world, the stylized shape of the social activist and revolutionary, Che Guevarra (Fig. **2-29**), has become an icon associated with class struggle, guerilla warfare, and, in general, counterculture. Although many young people wear merchandise from wristwatches to tee shirts emblazoned with the bearded, beret-sporting Che, it is not necessarily because they are familiar with who he was and what he did (an Argentinian physician-turned-Marxist revolutionary who joined Fidel Castro's efforts to depose the U.S.-backed dictator, Fulgencio Battista). From Cuba, Che went on to inspire (or incite) revolutions in Africa and Latin America, where he was captured with the help of the U.S. Central Intelligence Agency (the CIA) and executed. For most young people, Che's instantly recognizable image is simply synonymous with rebellion against authority and idealistic struggle.



2-29 Che, Hoy y Siempre Movie Poster by Niko

2-30 An Advertisement for the iPod™.

Similarly, the ad campaigns for the iPod MP3 players from Apple, Inc. have capitalized on shape—from the minimalist design of the iPods to the print ads featuring the silhouetted shapes of consumers using the product (Fig. **2-30**). The shapes of Apple products—iPods, Mac computers, and iPhones—have been so intrinsic to their appeal that financial commentators link the company's success to consumer identification with the products' shapes. Shape is a powerful visual element, and the representation of shape is a powerful design tool.

LIGHT AND VALUE

Light is fascinating stuff. It radiates. It illuminates. It dazzles. It glows. It beckons like a beacon. We speak of the "light of reason." We speak of genius as "brilliance." **Visible light** is part of the spectrum of electromagnetic energy that also includes radio waves and cosmic rays. It undulates wavelike throughout the universe. It bounces off objects and excites cells in our eyes, enabling us to see. Light is at the very core of the visual arts. Without light there is no art. Without light there is no life.

One of the lobes of the brain contains a theater for light. Somehow it distinguishes light from dark. Somehow it translates wavelengths of energy into colors. We perceive the colors of the visible spectrum, ranging from violet to red. Although red has the longest wavelength of the colors of the visible spectrum, these waves are measured in terms of *billionths* of a meter. And if our eyes were sensitive to light of a slightly longer wavelength, we would perceive infrared light waves. Sources of heat, such as our mates, would then literally glow in the dark. And our perceptions, and our visible arts, would be quite different.

Light makes it possible for us to see points, lines, shapes, and textures. All of these can be perceived as light against dark or, in the case of a pencil line on a sheet of paper, as dark against light. Light against dark, dark against light—in the language of art, these are said to be differences in *value*.

The value of a color of a surface is its lightness or darkness. The value is determined by the amount of light reflected by the surface: the greater the amount of light reflected, the lighter

1 ft.

2-31 FANG LIJUN.
No. 2 (1990–1991).
Oil on canvas. 31½" × 39⅜".

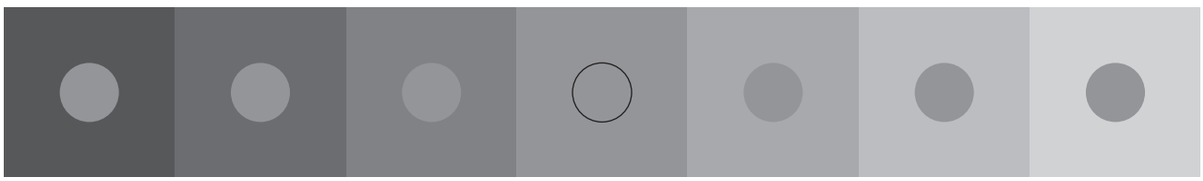
the surface. More light is reflected by a white surface than by a gray surface, and gray reflects more than black. White, therefore, is lighter than gray, and gray is lighter than black.

Infinite shades of gray lie between black and white. Consider the variations in Fang Lijun's *No. 2* (Fig. **2-31**).

Figure **2-32** is a value scale of gray that contains seven shades of gray, varying between a gray that is almost black to the left and one that is slightly off-white to the right. When we describe works of art in terms of value, not only do we distinguish their range of grays, but we also characterize their *relative* lightness and darkness, that is, their value contrast. **Value contrast** refers to the degrees of difference between shades of gray. Look again at Figure 2-32. Note that there are circles within the squares. Each of them is exactly the same value (they are all equally dark). However, their value contrast with the squares that contain them differs. The circle and square in the center are of the same value, and therefore they have no value contrast. The circles at either end of the scale have high value contrast with the squares that contain them.

Drawing objects or figures with high value contrast makes them easy to see, or makes them "pop." Consider Figure **2-33**. Part A shows a gray sentence typed on gray paper that is nearly as dark; it is difficult to read. Part B shows nearly black type on off-white paper; it is easy to read. Part C shows light type that is "dropped out" of dark gray—it, too, pops out at the reader because of high value contrast.

We can discuss the relative lightness and darkness in a work regardless of whether it is a black-and-white or



2-32 A value scale of grays.
Do the circles become darker as they move to the right, or do they only appear to do so? How does this value scale support the view of Gestalt psychologists that people make judgments about the objects they perceive that are based on the context of those objects?

2-33 *Value contrast.*
Artists and designers know that figures with high value contrast are easier to see. They tend to "pop" out at the viewer. Why is Part A of this figure relatively difficult to read? Why are Parts B and C easier to read?

1 ft.

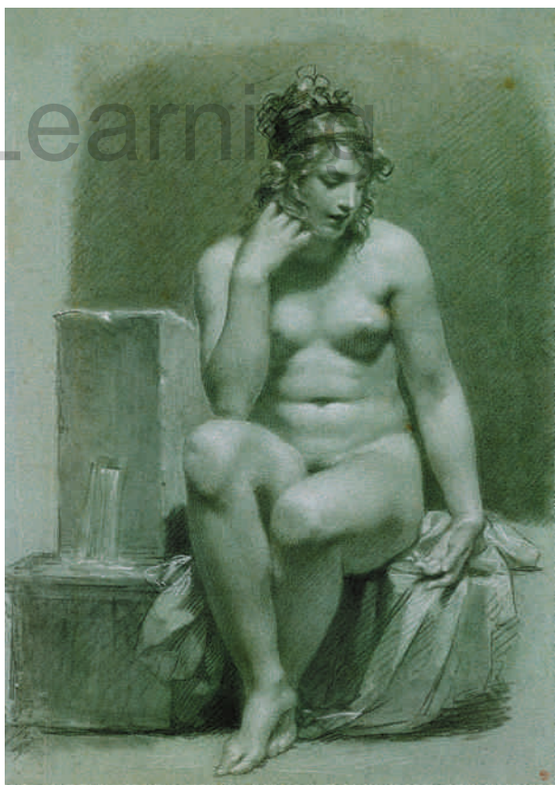
2-34 DAVID SALLE.
Angel (2000).
Oil and acrylic on canvas and linen (two panels). 72" × 96".

full-color composition. The term *value pattern* describes the variation in light and dark within a work of art and the ways in which they are arranged within a composition. Value patterns can be low-contrast or high-contrast. A high-contrast value pattern can be seen on the left side of David Salle's *Angel* (Fig. **2-34**), and a low-contrast value pattern can be seen on the right side.

Chiaroscuro

Artists use many methods to create the illusion of three dimensions in two-dimensional media, such as painting, drawing, or printmaking. They frequently rely on a pattern of values termed **chiaroscuro**, or the gradual shifting from light to dark through a successive gradation of tones across a curved surface. By use of many gradations of value, artists can give objects portrayed on a flat surface a rounded, three-dimensional appearance.

In *La Source* (Fig. **2-35**), Pierre-Paul Prud'hon creates the illusion of rounded surfaces on blue gray paper by using black and white chalk to portray light gradually dissolving into shade. His subtle modeling of the nude is facilitated by the middle value of the paper and the gradation of tones from light to dark through a series of changing grays. Prud'hon's light source is not raking and harsh, but diffuse and natural. The forms are not sharply outlined; we must work to find outlining anywhere but in the drapery and in the hair. The softly brushed edges



1 in.

2-35 PIERRE-PAUL PRUD'HON.
La Source (c. 1801).
Black and white chalk on blue gray paper. 21 3/16" × 15 5/16".
Sterling and Francine Clark Art Institute, Williamstown, MA.

1 in.

2-36 PABLO PICASSO.
Self-Portrait (1900).
Charcoal on paper. 8⅞" × 6½".
Museu Picasso, Barcelona. ©2009 Estate of Pablo Picasso/ Artists Rights Society (ARS), New York.

of the figure lead your eye to perceive three-dimensional form (continuing around into space) rather than flat, two-dimensional shape.

Picasso used chiaroscuro in his *Self-Portrait* (Fig. **2-36**), sketched at the age of 19. Although he restricted himself to the use of charcoal, he managed to effect a more subtle gradation of tone through shading that softly delineates his facial features. Sharp contrasts are eliminated by the choice of a buff-colored paper that provides a uniform flesh tone. In effect, the sides of the nose and cheek are built up through the use of soft shadows. The chin and jaw jut out above the neck through the use of sharper shadowing. The eyes achieve their intensity because they are a dark counterpoint to the evenly modeled flesh. There is a tension between the angularity of the lines in the drawing and the modeling. If you focus on the lines, the drawing may seem to be more angular and geometric than organic, but the use of chiaroscuro creates a more subtle and human rounding of the face.

Descriptive and Expressive Properties of Value

Values—black, grays, white—may be used purely to describe objects, or they can be used to evoke emotional responses in the viewer.

Black and white may have expressive properties or symbolic associations. Consider the photograph of a performance piece by Lorraine O'Grady (Fig. **2-37**) staged in protest of the opening of an exhibit entitled "Personae," which featured the work of nine white artists and *no* artists of color. Labeling herself "Mlle Bourgeoisie Noire" (or Miss Middle-Class Black), O'Grady appeared in an evening gown constructed of 180 pairs of white gloves and shouted poems that lashed out against the racial politics of the art establishment. Clearly, the white gloves were both evocative and provocative. They were at once a symbol of high society and servitude, of the elegant attire of the exclusive dinner party and the vaudevillian costume of blackface and white-gloved hands.

2-37 LORRAINE O'GRADY.
Mlle Bourgeoise Noire Goes to the New Museum (1981).
Courtesy of the artist.

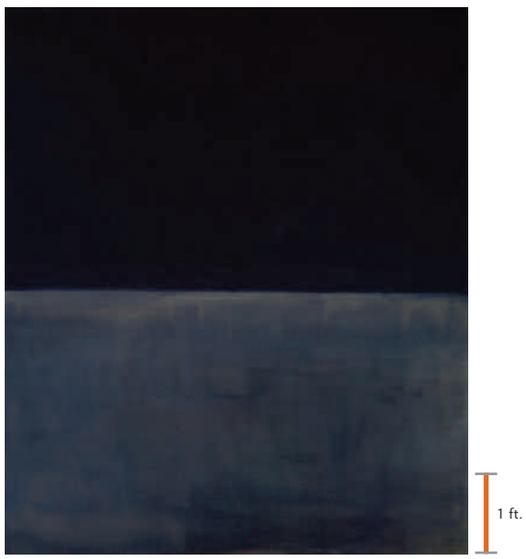
Rothko's *Number 22* with Rothko's *Black on Grey*

THE AMERICAN ARTIST MARK ROTHKO (1903–1970) worked in many styles during his lifetime. His early work, like that of many twentieth-century artists, was largely in a realistic vein. By the time he was 40 years old, he showed an interest in **Surrealism**, which was imported from Europe. But within a few years, he was painting the **Abstract Expressionist** color-field paintings with which he is mainly associated.

He painted *Number 22* (Fig. **2-38**) in 1949, at about the time a critic remarked that his work tended to evoke the color patterns of French Impressionists and to create "lovely moods." The realistic images of his early days and the symbols of his Surrealistic days were replaced with large, abstract fields of color, which were more or less vertically stacked. Here Rothko uses a high key palette with intensely saturated color. The values in *Number 22* are bold, jaunty, hot, and abrasive. We observe the work of an innovative 46-year-old painter coming into his own—creating his mature style, being invited to teach in academies across the country, and receiving some critical acclaim. The light values seem to imbue the work with boisterous emotion and life. Rothko was developing his signature image of "floating" rectangles that continued to be his model throughout his life's work. The canvases consisted solely of these shapes, stacked one atop the other, varied in width and height and hue, edges softened with feathered strokes that created the illusion of subtle vibration. By not referring to any specific visual experience, the high key values of these nonobjective works seem to suggest a divine, spiritual presence. The luminosity of *Number 22* is perhaps suggestive of the birth of the universe. The red band in the middle is reminiscent of a horizon line, but all is aglow and alive.

Compare *Number 22* to a work Rothko painted some 20 years later: *Black on Grey* (Fig. **2-39**). The painting reveals one of the most dramatic and resonant uses of black in the history of abstract painting. Toward the end of the 1960s, Rothko began to simplify his color fields, stretching his rectangles out to the very edges of the canvas and effectively dividing the surface into two simple fields. He also reduced his palette to low key values—particularly grays, browns, and black. In Rothko's last painting, *Black on Grey*, created just before he took his own life in his studio on February 25, 1970, black and gray merge at a horizon punctuated by a dull light. Darkness falls heavily on the mottled gray field; note that the title, *Black on Grey,* underscores the symbolism of the encroaching of death. It is as if he has brought his life, and his life's work, to a close. The spiritual presence has flickered out. ■

2-38 MARK ROTHKO.
Number 22 (1949).
Oil on canvas. 117" × 107⅛".
The Museum of Modern Art, N.Y. Gift of the artist. Digital Image ©The Museum of Modern Art, New York/Licensed by SCALA/Art Resources, NY. ©1998 Kate Rothko Prizel and Christopher Rothko/Artists Rights Society (ARS), New York.



2-39 MARK ROTHKO.
Black on Grey (1970).
Acrylic on canvas, 80¼" × 69".
The Solomon R. Guggenheim Museum, New York. Gift, The Mark Rothko Foundation, Inc., 1986. 86.3422 ©1998 Kate Rothko Prizel and Christopher Rothko/Artists Rights Society (ARS), New York

It is only after years of preparation that the young artist should touch color—not color used descriptively, that is, but as a means of personal expression.

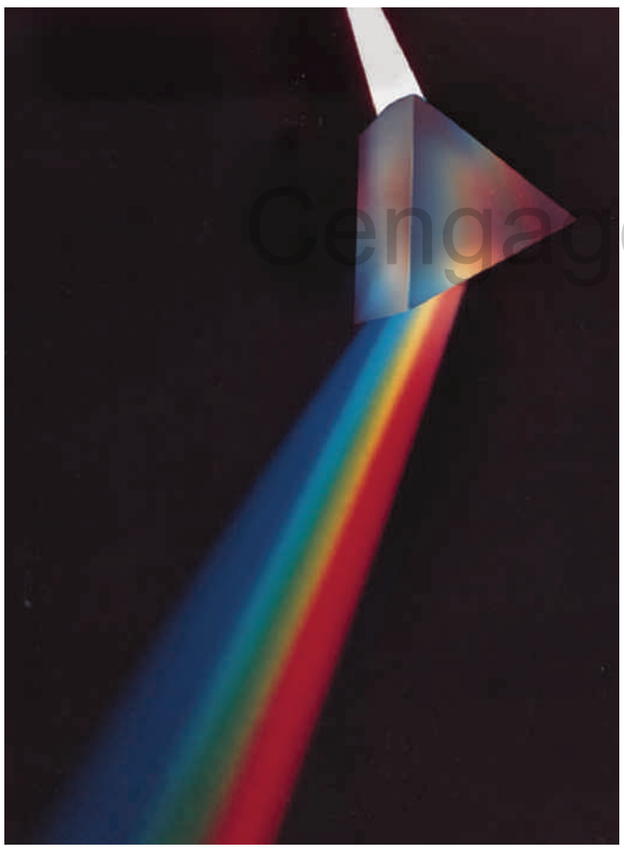
—HENRI MATISSE

COLOR

Color is a central element in our spoken language as well as in the language of art. The language connects emotion with color: we speak of being blue with sorrow, red with anger, green with envy.

The color in works of art can also trigger strong emotional responses in the observer, working hand in hand with line and shape to enrich the viewing experience. The Postimpressionist Vincent van Gogh often chose color more for its emotive qualities rather than for its fidelity to nature. Likewise in some amorphous abstract works, such as *Bay Side* (Fig. 2-23), color seems to be much of the message being communicated by the artist.

What is color? You have no doubt seen a rainbow or observed how light sometimes separates into several colors when it is filtered through a window. Sir Isaac Newton discovered that sunlight, or white light, can be broken down into different colors by a triangular glass solid called a prism (Fig. **2-40**).



2-40 Prism.
A prism breaks down white light into the colors of the visible spectrum.
Courtesy of Bausch & Lomb.

Psychological Dimensions of Color: Hue, Value, and Saturation

The wavelength of light determines its color, or **hue**. The visible spectrum consists of the colors red, orange, yellow, green, blue, indigo, and violet. The wavelength for red is longer than that for orange, and so on through violet.

The value of a color, like the value of any light, is its degree of lightness or darkness. If we wrap the colors of the spectrum around into a circle, we create a color wheel such as that shown in Figure **2-41**. (We must add some purples not found in the spectrum to complete the circle.) Yellow is the lightest of the colors on the wheel, and violet is the darkest. As we work our way around from yellow to violet, we encounter progressively darker colors. Blue–green is about equal in value to red–orange, but green is lighter than red.

The colors on the green–blue side of the color wheel are considered **cool** in "temperature," whereas the colors on the yellow–orange–red side are considered **warm**. Perhaps greens and blues suggest the coolness of the ocean or the sky, and hot things tend to burn red or orange. A room decorated in green or blue may appear more appealing on a hot day in July than a room decorated in red or orange. On a canvas, warm colors seem to advance toward the picture plane. Cool colors, on the other hand, seem to recede.

The **saturation** of a color is its pureness. Pure hues have the greatest intensity, or brightness. The saturation, and hence the intensity, decrease when another hue or black, gray, or white is added. Artists produce **shades** of a given hue by adding black, and **tints** by adding white.

COLOR WHEEL

2-41 A color wheel.
The color wheel bends the colors of the visible spectrum into a circle and adds a few missing hues to complete the circle.

Additive and Subtractive Colors

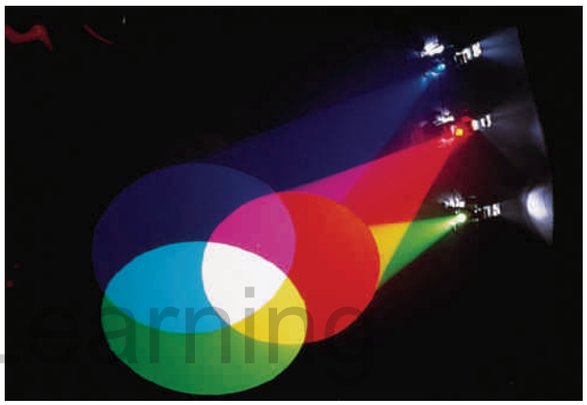
When all those years as a child you were mixing finger-paints together, or rubbing crayons across already colored surfaces, you probably thought you were adding colors to other colors. In a piece of irony in which science contradicts common sense, it turns out that you were actually subtracting colors from one another. **Additive colors** have to do with mixing *lights*, and **subtractive** colors have to do with mixing *pigments*.

Additive colors are rays of colored light, which, when overlapped or "mixed" with other rays of color, produce lighter colors and white (Fig. **2-42**). White light can be recreated by overlapping orange-red, blue-violet, and green. Because these colors cannot be derived from the mixing of other colored light, they are called **primary colors**. When they are overlapped, they form lighter colors known as **secondary colors**: the overlap of orange-red and green create yellow; the overlap of blue-violet and green create indigo (or cyan); and lights of blue-violet and orange-red "mix" to form magenta. White is at the center of the three-way overlap of these primary colors.

Subtractive color refers to the mixing of pigment rather than light, and is actually more relevant to the experience of the artist (Fig. **2-43**). When you apply a pigment to a surface, as in applying paint to a canvas, you are applying a substance that causes that surface to reflect every color of the visible spectrum *except for the color you see on the surface*.

Complementary versus Analogous Colors

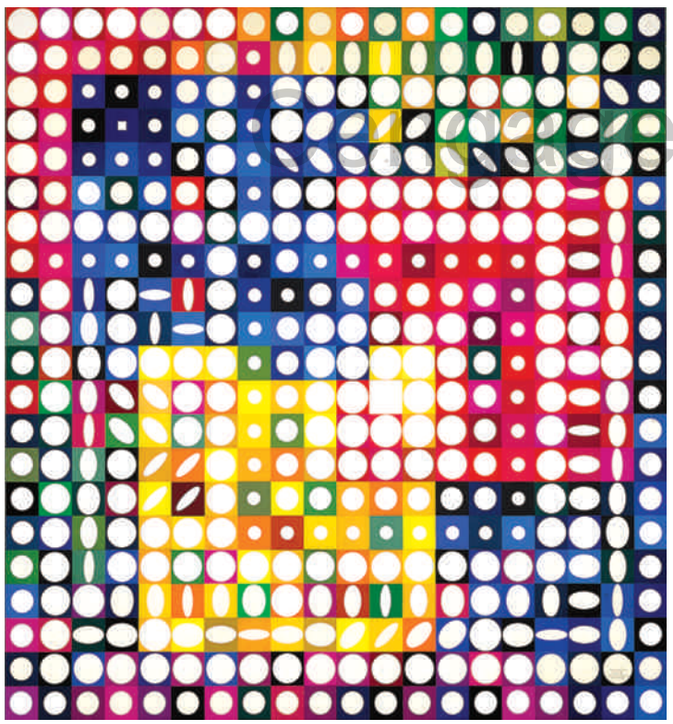
With pigments, red, blue, and yellow are the primary colors, the ones that we cannot produce by mixing other



2-42 Additive color mixtures.
One adds colors by mixing lights.

2-43 Subtractive color mixtures.
One subtracts colors by mixing pigments.

2-44 ROMARE BEARDEN.
J Mood (c. 1985).
Collection of Wynton Marsalis. Art ©Romare Bearden Foundation/ Licensed by VAGA, New York, NY



2-45 VICTOR VASARELY.
Orion (1956).
Paper on paper mounted on wood. 6'10½" × 6'6¾".
Hirshhorn Museum and Sculpture Garden, Smithsonian Institution, Washington, DC. Gift of Joseph H. Hirshhorn, 1966, 66.5389.
©2009 Artists Rights Society (ARS), New York/ADGAP, Paris.

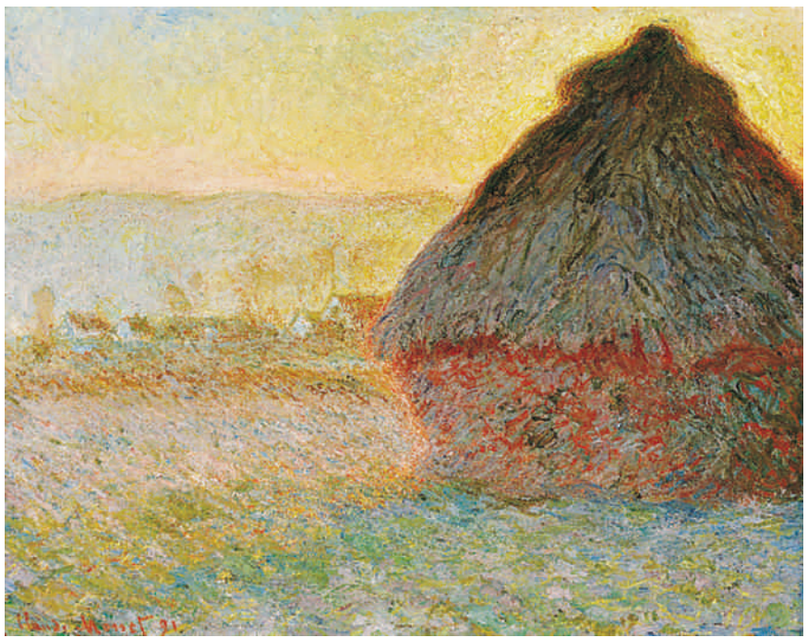
hues. Mixing pigments of the primary colors creates secondary colors. The three secondary colors are orange (derived from mixing red and yellow), green (blue and yellow), and violet (red and blue), denoted by the number 2 on the color wheel. Tertiary colors are created by mixing pigments of primary and adjoining secondary colors and are denoted by a 3 on the color wheel.

Hues that lie next to one another on the color wheel are **analogous**. They form families of color, such as yellow and orange, orange and red, and green and blue. As we work our way around the wheel, the families intermarry, such as blue with violet and violet with red. Works that use closely related families of color seem harmonious, such as Romare Bearden's *J Mood* (Fig. **2-44**). Works that juxtapose **complementary** colors—colors that lie across from one another on the color wheel—will have the opposite effect. They will appear jarring and discordant rather than harmonious.

Victor Vasarely's *Orion* (Fig. **2-45**) is an assemblage of paper cutouts that take on different intensities depending on their backgrounds. Vasarely, an Op artist, sought to create optical illusions in many of his works. In *Orion*, the shifts from warm to cool hues cause elements of the arrangement to move toward or away from the viewer. The progressions of circles and ellipses within lighter and darker squares contribute to the pulsating sense of the piece.

Local versus Optical Color

Have you ever driven at night and wondered whether vague, wavy lines in the distance outlined the peaks of hills or the bases of clouds? Objects may take on different hues as a function of distance or lighting conditions. The greenness of the trees on a mountain may make a strong impression from the base of the mountain, but from

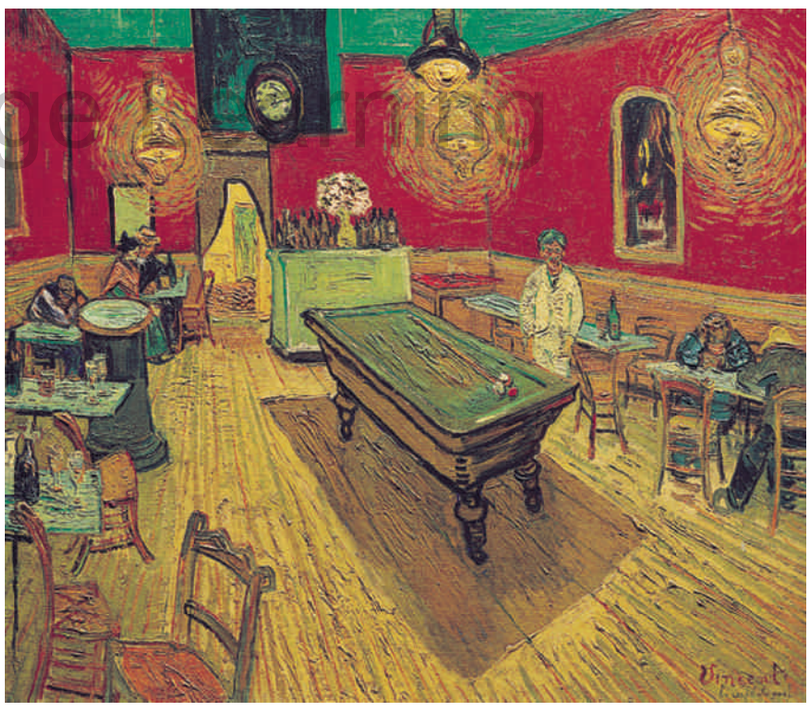


1 ft.

2-46 CLAUDE MONET.
Haystack at Sunset near Giverny (1891).
Oil on canvas. 28⅞" × 36½".
Museum of Fine Arts, Boston. Juliana Cheney Edwards Collection. Bequest of Robert J. Edwards in memory of his mother

a distant vantage point, the atmospheric scattering of light rays may dissolve the hue into a blue haze. Light-colored objects take on a dark appearance when lit strongly from behind. Hues fade as late afternoon wends its way to dusk and dusk to night. **Local color** is defined as the hue of an object as created by the colors its surface reflects under normal lighting conditions. **Optical color** is defined as our perceptions of color, which can vary markedly with lighting conditions.

Consider the *Haystack at Sunset near Giverny* (Fig. **2-46**) by the French Impressionist Claude Monet. Hay is light brown or straw-colored, but Monet's haystack takes on fiery hues, reflecting the angle of the light from the departing sun. The upper reach of the stack, especially, is given a forceful silhouette through flowing swaths of dark color. Surely the pigments of the surface of the haystack are no darker than the roofs of the houses that cling tenuously to an implied horizontal line across the center left of the picture. But the sun washes out their pigmentation. Nor can we with certainty interpret the horizontal above the roofs. Is it the top of a distant hill or the base of a cloud? Only in the visual sanctuary to the front of the haystack do a few possibly accurate greens and browns assert themselves. The amorphous shapes and pulsating color fields of *Haystack* lend the painting a powerful emotional impact.



1 ft.

2-47 VINCENT VAN GOGH.
The Night Café (1888).
Oil on canvas. 27½" × 35".

In *The Night Café* (Fig. **2-47**), Vincent van Gogh used color expressively rather than realistically. A café is generally seen as a place to unwind and relax in the company of friends, yet the artist chose this harsh palette to tell the

2-48 YINKA SHONIBARE.
Victorian Couple (1999).
Wax-printed cotton textile. Approx. 60" × 36" × 36" and 60" × 24" × 24".
Courtesy of Stephen Friedman Gallery, London

world that this is a place where one "can ruin oneself." The red of the walls and the green of the ceiling clash, yet the billiard table and the floor, which both contain reds and greens, marry the two. The agitated swirls of local color that surround the lamps create lights that never were—a psychological display of brilliance and agitation.

Color as Symbol

The connectedness between emotion and color often explains an artist's palette choices. We all link mood with color—we are green with envy, red with anger, blue with sorrow, white with fright. Some of these descriptions may be more accurate than others (faces really do turn red when angry or white when frightened), but they have in common their use of symbolism: Feelings and behavior are symbolized with color.

Abstract notions and ideas also have their symbolic color coordinates. For example, what does it mean if one is true to the red, white, and blue? If you are an American citizen, it means that you are loyal to your country—The United States of America—as symbolized by the red, white, and blue colors of the flag. But this would also be true if you were, say, a British student or a French student, because their national flags (the Union Jack or the Tri-Color) bear the same color combination, albeit with different designs.

In a subtle but chilling commentary on issues of equality, oppression, and difference, contemporary Nigerian British artist Yinka Shonibare reworked typical Victorian costume in fabrics expressing African identity, both constructed and adopted. In *Victorian Couple* (Fig. **2-48**) the profiles of the coat and bustle may seem familiar, but the colorful textiles and printed designs create a cultural disconnect with symbolic ramifications. Shonibare was born in London of Nigerian parents and spent most of his childhood in Nigeria. He returned to England to study at the University of London and has focused his art on issues of African identity and authenticity, in which the symbolism of color plays a central role.

This brings us to an important fact concerning color and symbolism: The symbols of colors, their meanings, are culture-specific. You may associate white with a bride in American culture, but in China, brides wear red. If you happen to spot a young Chinese American newlywed couple posing for their wedding portraits in a city park, you will likely notice that even though the bride is dressed in white, she wears a prominent red ribbon on her bodice—East meets West.

Texture is another element of art that can evoke a strong emotional response.

TEXTURE

The softness of skin and silk, the coarseness of rawhide and homespun cloth, the coolness of stone and tile, the warmth of wood—these are but a few of the **textures**

that artists capture in their works. The word *texture* derives from the Latin for "weaving," and it is used to describe the surface character of woven fabrics and other materials as experienced primarily through the sense of touch.

The element of texture adds a significant dimension to art beyond representation. An artist may emphasize or even distort the textures of objects to evoke a powerful emotional response in the viewer. Consider the contrasting use of texture—and the differing emotional impact—of Leon Kossoff's *Portrait of Father, No. 2* (Fig. **2-49**) and Marie Laurencin's *Mother and Child* (Fig. **2-50**). The first contains the harsh, gouged textures of **impasto**—that is, the thick buildup of paint on the surface of the canvas. The textures formed by the technique create an overall aggressive, confrontational feeling. If you try to imagine the image rendered with smoother, flatter strokes, some of the dysphoria might well be diminished. As it is, the texture might suggest to some the type of father/authority figure that the psychoanalyst Sigmund Freud believed young boys fear. In Freud's theory, fathers are dangerous rivals for the affections of their mothers.

Laurencin's *Mother and Child*, like Kossoff's *Portrait of Father, No. 2,* is an oil painting. But here the brushstrokes are shorter and flatter, and they gradually build up the imagery rather than "carve" it. The overall texture of *Mother and Child* is soft and seems comforting, reinforcing the feeling of tenderness between mother and child.

In these contrasting portraits, the role of texture surpasses the literal content of the works—that is, they are both portraits of people—to add an emotional dimension for the viewer. The father becomes an oppressive figure by virtue of the tension in the texture, and the mother

2-49 LEON KOSSOFF.
Portrait of Father, No. 2 (1972).
Oil on board. 60" × 36".
Courtesy of L. A. Louver, Venice, CA.

2-50 MARIE LAURENCIN.
Mother and Child (1928).
Oil on canvas. 32" × 25½" (81.3 cm × 63.8 cm).
City of Detroit Purchase, 28.99. Photograph ©1989 The Detroit Institute of Arts. ©2009 Artists Rights Society (ARS), New York/ADAGP, Paris.

becomes a symbol of nurturance by virtue of the tranquility in the texture. In both portraits, texture augments the meaning of the work.

Types of Texture

In three-dimensional media such as sculpture, crafts, and architecture, the materials have definable textures or *actual texture*. In a two-dimensional medium such as painting, we discuss texture in other terms. For example, the surface of a painting has an *actual* texture—it can be rough, smooth, or something in between. But we typically discuss the surface only when the texture is palpable or unusual, as when thick impasto is used or when an unusual material is added to the surface.

Actual Texture

Actual texture is *tactile*. When you touch an object, your fingertips register sensations of its actual texture—rough, smooth, sharp, hard, soft. Any work of art has actual texture—whether it is the hard, cold texture of marble or the rough texture of pigment on canvas. Vincent van Gogh's *Sunflowers* (Fig. **2-51**) is rendered with a great deal of surface texture. Van Gogh used impasto—the most common painting technique that yields actual texture—to define his forms, and he often deviated from realistic colors and textures to heighten the emotional impact of his work. The surface texture of the painting goes beyond the real texture of the blossom to communicate an emotional intensity and passion for painting that is independent of the subject matter and more linked to the artistic process—that is, to the artist's method of using gestural brushstrokes to express his sensibilities.

Visual Texture

Simulated texture in a work of art is referred to as **visual texture**. Artists use line, color, and other elements of art to create the illusion of various textures in flat drawings and paintings. The surface of Rachel Ruysch's *Flower Still Life* (Fig. **2-52**) is smooth and glasslike; however, an abundance of textures is *simulated* by the painstaking detail of the flowers and leaves.

2-51 VINCENT VAN GOGH.
Sunflowers (1887).
Oil on canvas. 43.2 cm × 61 cm.
The Metropolitan Museum of Art, N.Y. Rogers Fund
Image copyright ©The Metropolitan Museum of Art/Art Resource, NY

2-52 RACHEL RUYSCH.
Flower Still Life (after 1700).
Oil on canvas. 29¾" × 23⅞".
The Toledo Museum of Art, OH. Purchased with funds from the Libbey Endowment, Gift of Edward Drummond Libbey, 1956.57

1 in.

2-53 DAVID GILHOOLY.
Bowl of Chocolate Moose (1989).
Ceramic. 10" × 6" × 7" (25.4 cm × 15.2 cm × 17.8 cm).
Courtesy of the artist.

1 ft.

2-54 JAMES ROSENQUIST.
Gift Wrapped Doll #19 (1992).
Oil on canvas. 60" × 60" (152 cm × 152 cm).
Art ©James Rosenquist/Licensed by VAGA, New York, NY.

Artists employ a variety of materials to create visual texture, or the illusion of surfaces or textures far removed from their actual texture. Touch David Gilhooly's *Bowl of Chocolate Moose* (Fig. **2-53**), and, your eyes will tell you, your hand will come away covered with that sticky confection. The surface may appear to be warm and pliable, as if this chocolate moose were panting and melting away into an edible dessert. In fact, it is hard and cool to the touch. The actual texture of the ceramic from which it is made is completely contrary to the illusion that the artist has achieved. *Chocolate Moose* is an artistic pun of virtuoso technique that demonstrates how the visual texture of a work of art affects our response to it. What memories does it conjure up for you? Eating a chocolate bar on a warm summer day?

The success of the visual pun in Gilhooly's *Chocolate Moose* is wholly dependent on the artist's ability to fool the eye. Artists call this **trompe l'oeil**—the French phrase that literally means "trick the eye." Trompe l'oeil has made its appearance throughout the history of art, from first-century BCE Roman wall painting to contemporary Photorealism.

In *Gift Wrapped Doll #19* (Fig. **2-54**), Pop artist James Rosenquist uses a common medium—oil on canvas—to simulate the texture of cellophane wrapped around the head of a wide-eyed porcelain doll. The folds of the transparent wrap reflect light, tearing across the innocent face like white-hot rods. We feel, as observers, that were we to poke at the cellophane, we would hear a crackling sound and the pattern of lightning-like stripes would change direction. The image of a doll is usually that of a cuddly companion, but Rosenquist's specimen is haunting and sinister. Perhaps it is a commentary on the ways in which the Western ideal of beauty—blue eyes, blond hair, and a "Cupid's bow" mouth—can suffocate the little girls who grow into women.

Subversive Texture

Textures are sometimes chosen or created by the artist to subvert or undermine our ideas about the objects they depict. **Subversive texture** compels the viewer to look again at an object and to think about it more deeply.

2-55 MERET OPPENHEIM.
Object (1936).
Fur-covered cup, saucer, and spoon.
Overall height: 2⅞".

1 in.

You may take objects such as a cup, saucer, and spoon for granted, but not after viewing Meret Oppenheim's *Object* (Fig. **2-55**). Oppenheim uses subversive texture in lining a cup, saucer, and spoon with fur. Teacups are usually connected with civilized and refined settings and occasions. The coarse primal fur completely subverts these associations, rendering the thought of drinking from this particular cup repugnant. *Object* also shows how textures can simultaneously attract and repel us. Does Oppenheim want the viewer to ponder the violence that has enabled civilization to grow and endure?

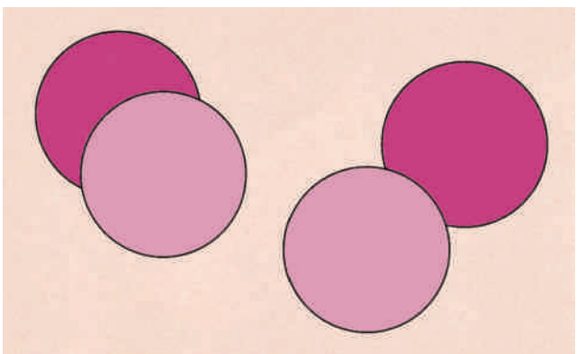
SPACE

"No man is an island, entire of itself," wrote the poet John Donne. If Donne had been speaking of art, he might have written, "No subject exists in and of itself." A building has a site, a sculpture is surrounded by space, and even artists who work in two-dimensional media such as drawing and painting create figures that bear relationships to one another and to their grounds. Objects exist in three-dimensional space. Artists either carve out or model their works within three-dimensional space, or else somehow come to terms with three-dimensional space through two-dimensional art forms.

In Chapters 10 and 12, which discuss the three-dimensional art forms of sculpture and architecture, we explore ways in which artists situate their objects in space and envelop space. In Chapter 12, we chronicle the age-old attempt to enclose vast reaches of space that began with massive support systems and currently focuses on light-weight steel-cage and shell-like structures. In this section, we examine ways in which artists who work in two dimensions create the illusion of depth—that is, the third dimension.

Overlapping

When nearby objects are placed in front of more distant objects, they obscure part or all of the distant objects. Figure **2-56** shows two circles and two arcs, but our perceptual experiences encourage us to interpret the drawing as showing four circles, two in the foreground and two in back. Likewise, this perceptual phenomenon allows an artist to create the illusion of depth by overlapping objects,



2-56 Overlapping circles and arcs.

First study science, and then follow with practice based on science. . . . The painter who draws by practice and judgment of the eye without the use of reason is like the mirror that reproduces within itself all the objects which are set opposite to it without knowledge of the same. . . . The youth ought first to learn perspective, then the proportions of everything, then he should learn from the hand of a good master.

—LEONARDO DA VINCI

or apparently placing one in front of another. Many of the works in your textbook illustrate the technique of overlapping and its effect in suggesting space—whether deep, as in Church's *The Andes of Ecuador* (Fig. 2-68), or shallow, as in Orozco's *Epic of American Civilization* (Fig. 1-36).

Relative Size and Linear Perspective

The farther objects are from us, the smaller they appear to the eye. To recreate this visual phenomenon and to create the illusion of three-dimensionality on a two-dimensional surface, such as a canvas, artists employ a variety of techniques, among them **relative size** and **linear perspective**.

For example, things that are supposed to be closer to the viewer are larger, whereas things that are supposed to be more distant are smaller. This simple principle of relative size can do wonders to suggest spatial complexity in works such as *Heirs Come to Pass, 3* (Fig. **2-57**) by Martina López.

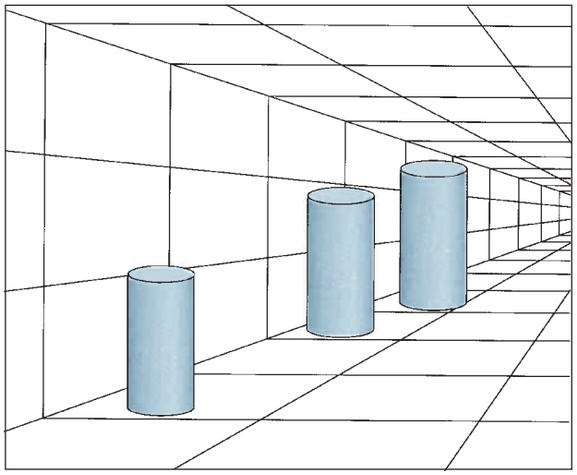
The space in the composition is divided into three principal areas—foreground, middle ground, and background. The stagelike setting consists of a broad and minimally defined landscape that fills most of the area of the piece, leaving just a small strip for a cloud-soaked sky. With no apparent design, figures (from old family photographs) are digitally patched into the print. They range from looming to barely visible, and their size relative to one another creates whatever illusion of space there is. For López, this "visual terrain" is open, not only to her own memories, but also to those of the viewer.

2-57 MARTINA LÓPEZ.
Heirs Come to Pass, 3 (1991).
Silver dye bleach print made from digitally assisted montage. 76.2 cm × 127 cm.
Smithsonian American Art Museum. Gift of the Consolidated Gas Company Foundation
Image ©Smithsonian American Art Museum, Washington, DC/Art Resource, NY. ©Martina López

1 in.

2-58 NI ZAN.
Rongxi Studio (Late Yuan/Early Ming dynasty, 1372 CE).
Hanging scroll; ink on paper. H: 29¼".
Collection of the National Palace Museum, Taipei, Taiwan, Republic of China.

In the Chinese ink drawing shown in Figure **2-58**, the natural elements at the top and bottom of the scroll are shown at the same size, as if they were seen from the same distance. Yet the viewer—particularly the schooled viewer—tends to perceive the hills at the top as being farther away. Objects depicted at the bottom of a work tend to be perceived as being closer to the viewer.

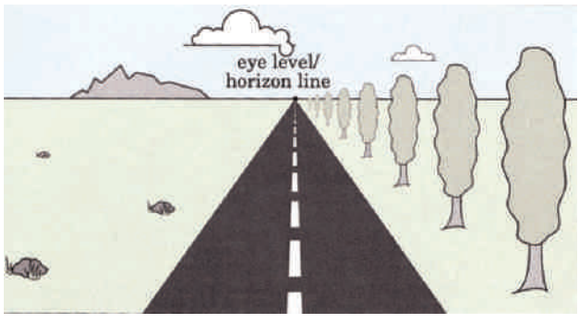


2-59 A visual illusion.

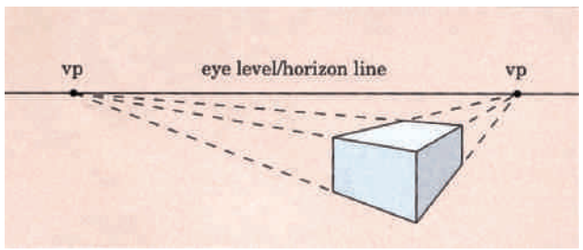
We see this again in Figure **2-59**. Note how the cylinders appear to grow larger toward the top of the composition. Why? For at least two reasons: (1) Objects at the bottom of a composition are usually perceived as being closer to the picture plane; and (2) the converging lines are perceived as being parallel, even when they are not. However, if they were parallel, then space would have to recede toward the center right of the composition, and the cylinder in that region would have to be farthest from the viewer. According to rules of perspective, a distant object that appears to be equal in size to a nearby object would have to be larger, so we perceive the cylinder to the right as the largest, although it is equal in size to the others.

Figures **2-60** through **2-63** show that the illusion of depth can be created in art by making parallel lines come together, or converge, at one or more **vanishing points** on an actual or implied **horizon**. The height of the horizon in the composition corresponds to the apparent location of the viewer's eyes, that is, the **vantage point** of the viewer. As we shall see in later chapters, the Greeks and Romans had some notion of linear perspective, but Renaissance artists such as Leonardo da Vinci refined perspective.

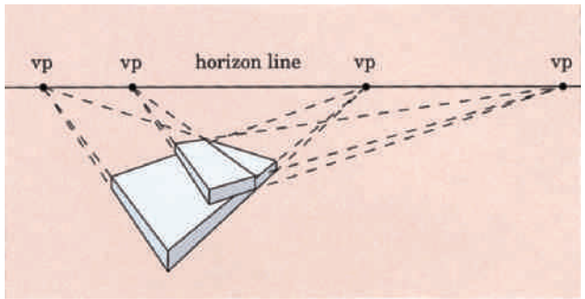
In **one-point perspective** (Fig. **2-60**), parallel lines converge at a single vanishing point on the horizon. Raphael's (1483–1520) Renaissance masterpiece *School of Athens* (Fig. **2-64**) is a monumental example of one-point perspective. Representing Philosophy, it was one of four matching frescos depicting the most valuable aspects of a pope's education. The painting is a virtual who's-who of intellectual shakers and movers from antiquity to the



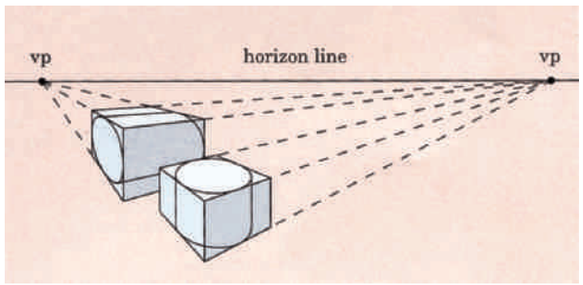
2-60 One-point perspective.



2-61 Two-point perspective.



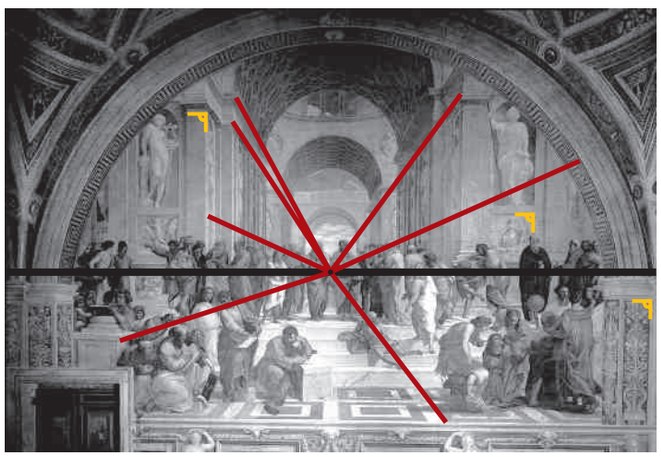
2-62 Perspective drawing of objects set at different angles.



2-63 Curved objects drawn in perspective.

Renaissance. Plato (left) and Aristotle (right) occupy the center of the congregation, sharing the spotlight and representing divergent philosophical perspectives. The horizon line cuts through the center of their bodies, and the vanishing point sits squarely between them (Fig. 2-65). Converging on this point are orthogonals that can be traced from the patterns of the marble flooring below the horizon line and the horizontal entablatures sitting atop the piers that recede dramatically toward the rear of the arcade.

2-64 RAFFAELLO SANZIO (CALLED RAPHAEL).
Philosophy, or School of Athens (1509–1511).
Fresco. Approximately 26' × 18'.



2-65 Perspective in *School of Athens*.
Raphael's painting is a powerful example of one-point perspective.

In **two-point perspective** (Fig. 2-61), two sets of parallel lines converge at separate vanishing points on the horizon. You would be hard-pressed to find a clearer use of two-point perspective than in Gustave Caillebotte's *Paris Street: Rainy Day* (Fig. **2-66**). We see the building in the background from the eye level of the figures in the foreground. The sight lines follow the receding dual facades of the building toward two distinct vanishing points (Fig. **2-67**).

We can use additional sets of parallel lines to depict objects that are set at different angles, as shown in Figure 2-62. Figure 2-63 shows how curved objects may be "carved out" of rectangular solids.

2-66 GUSTAVE CAILLEBOTTE.
Paris Street: Rainy Day (1877).
Oil on canvas. 83½" × 108¼".
Charles H. and Mary F. S. Worcester Collection, 1964.336, The Art Institute of Chicago.
Photography ©The Art Institute of Chicago.

2-67 Perspective in Caillebottoe's *Paris Street: Rainy Day.*
The use of two-point perspective in the Caillebotte painting is powerful and obvious. It draws our attention upward from the prominent figures in the foreground.
Charles H. and Mary F. S. Worcester Collection, 1964.336, The Art Institute of Chicago.
Photography ©The Art Institute of Chicago.

Atmospheric Perspective

In atmospheric perspective (also called *aerial perspective*), the illusion of depth is created by techniques such as texture gradients, brightness gradients, color saturation, and the manipulation of warm and cool colors. A gradient is a progressive change. The effect of a **texture gradient** relies on the fact that closer objects are perceived as having rougher or more detailed surfaces. The effect of a **brightness gradient** is due to the lesser intensity of distant objects.

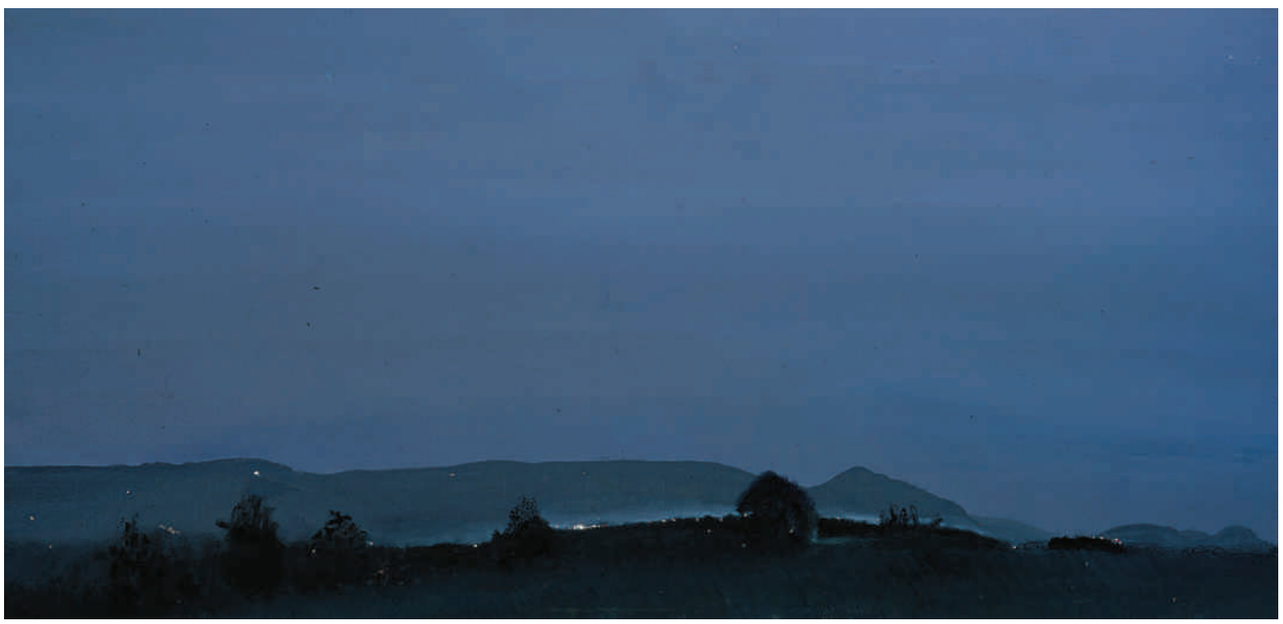
Frederic Edwin Church's masterpiece, *Andes of Ecuador* (Fig. **2-68**), relies in part on atmospheric perspective to create the illusion of deep vistas. The foreground of the picture contains great botanical detail. As the vista recedes into the distance, the plants and hills become less textured and the colors become less saturated. Church belonged to the Hudson River School of nineteenth-century American painting. The group's members used landscape as a vehicle for communicating the feeling of awe they experienced when they encountered the romantic, scientific, and religious ideas of the era—a world without limits.

The haunting painting *Schunnemunk Mountain* (Fig. **2-69**) reveals Sylvia Plimack Mangold's fascination with the transitional moments of the day. Here in the evening of the Hudson River Valley, brightness gradients employing purple, navy, and cobalt set the hills beneath the sky. The dark foreground is rendered more vacant by twinkling lights that suggest habitation in the valley beyond.

1 ft.

2-68 FREDERIC EDWIN CHURCH.
Andes of Ecuador (1855).
Oil on canvas. 48" × 75".
Original purchase from the Mary Reynolds Babcock Foundation, Z. Smith Reynolds Foundation, ARCA Foundation, and Anne Cannon Forsyth, 1966.2.9. Reynolda House, Museum of American Art, Winston-Salem, North Carolina

2-69 SYLVIA PLIMACK MANGOLD.
Schunnemunk Mountain (1979).
Oil on canvas. 60" × 80⅛".
Courtesy of Dallas Museum of Art, Dallas, TX.



1 ft.

I paint with shapes.

—ALEXANDER CALDER

TIME AND MOTION

Objects and figures exist and move not only through space but also through the dimension of time. In its inexorable forward flow, time provides us with the chance to develop and grasp the visions of our dreams. Time also creates the stark limits beyond which none of us may extend.

Artists through the ages have sought to represent three-dimensional space in two-dimensional art forms as well as to represent, or imply, movement and the passage of time. Only in modern times have art forms such as cinematography and video been developed that involve *actual* movement and *actual* time.

Actual Motion

Artists create or capture **actual motion** in various ways. **Kinetic art** (from the Greek *kinesis*, meaning "movement") and photography are two of them. Most works of art sit quietly on the wall or, perhaps, on a pedestal, but kinetic art is designed to move.

The **mobiles** of Alexander Calder are some of the most popular examples of kinetic art in the twentieth century. The colossal mobile that hangs in the interior of the East Building of the National Gallery of Art (Fig. **2-70**) is composed of winglike dashes and disks of different sizes that are cantilevered from metal rods such that they can rotate horizontally—in orbits—as currents of air press against them. However, the center of gravity remains stable, so the entire sculpture is hung from a single point. Unlike a painting, the mobile changes according to the movement of air above and the movement of the observer below, who might shift vantage points to create new compositions, new relationships among the shapes and lines.

With Liz Magic Laser's *The Thing #25* (Fig. **2-71**), the work of art is the record of a moment in time choreographed for the purposes of the photograph. Many of Laser's works examine the relationship between people and liquid; her subjects are typically immersed in it, spattered by it, or projecting it. What captivates the viewer, however, is the way in which time has stopped in this work, exaggerating the impact and ejection of a mysterious green goo.

2-70 ALEXANDER CALDER.
Untitled (1972).
East Building mobile.
National Gallery of Art, Washington, DC. Gift of the Collectors Committee, 1977. 76.1, Image ©2003 Board of Trustees, National Gallery of Art, Washington, DC, 1976. ©2009 Calder Foundation, New York/Artists Rights Society (ARS), New York.

2-71 LIZ MAGIC LASER.
The Thing #25 (2005).
Photograph.

2-72 GIANLORENZO BERNINI.
Apollo and Daphne (1622–1624).
Marble. 7' 6".

Implied Motion and Time

The Thing #25 captured motion through the use of **stopped time**. Other works of art imply motion; that is, the viewer infers that motion is occurring or has occurred. **Implied motion** and **implied time** are found in Baroque sculptor Gianlorenzo Bernini's *Apollo and Daphne* (Fig. **2-72**) through the use of diagonal lines of force that help simulate movement from left to right. In the Greek myth, the wood nymph Daphne beseeches the gods to help her escape the overtures of Apollo. As Apollo gains on her, her prayer is answered in a most ironic manner because the gods choose to facilitate her "escape" by transforming her into a tree. In Bernini's sculpture, we see Daphne just at the point when bark begins to enfold her body, her toes begin to take root, and her fingertips are transformed into the branches of a laurel. The passage of time is implied as she is caught in the midst of her transformation.

In *Apollo and Daphne*, motion is implied in the fluid strides and seamless transfiguration of Daphne. Motion can also be implied through repetitive imagery. We are all familiar with the way in which comic strips suggest the motion of the characters by repetition of imagery that changes slightly from frame to frame. This technique spans time and culture.

1 in.

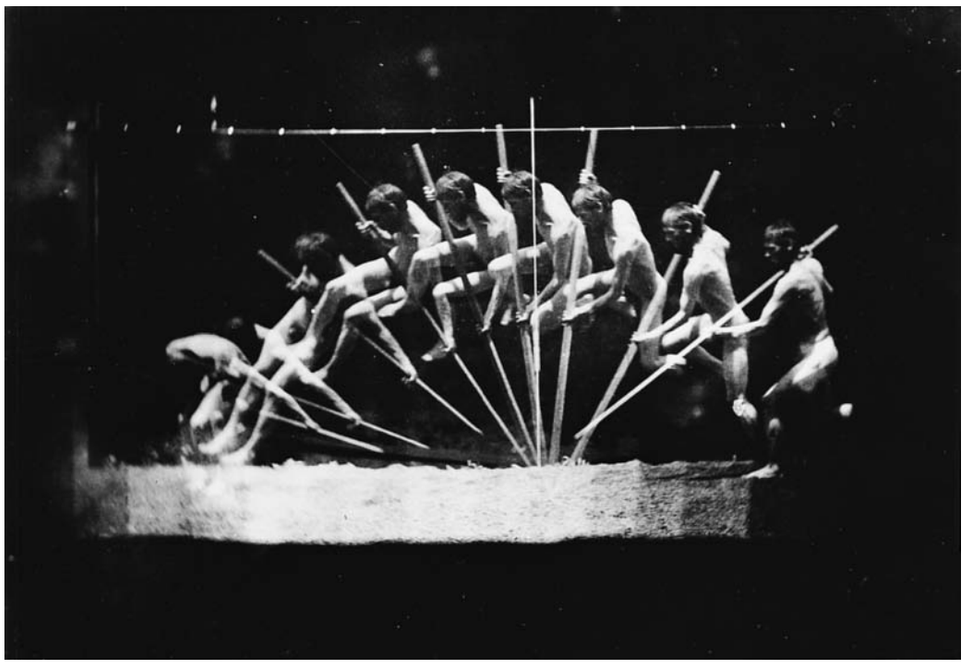
2-73 *Scenes from Genesis* (c. 840 CE).
Illustration in the Moutier-Grandval Bible. 20" × 14¾".

In an illustration from the medieval Moutier-Grandval Bible (Fig. **2-73**), the entire story of Adam and Eve is told through the repetition of the characters in comic-strip fashion—in horizontal strips stacked one atop the other. Time passes from the Creation of Adam through the Temptation and the Expulsion from the Garden of Eden to the last segment, in which we find Eve having given birth and Adam toiling in the fields. The pictorial elements—such as the landscape—are kept to a minimum, focusing our attention on the principal characters and the narrative.

The Illusion of Motion

There is a difference between implied motion and the illusion of motion. Works such as *Apollo and Daphne* imply that motion has occurred or that time has passed. In other works, artists use techniques to suggest that motion is *in the process of occurring* rather than having occurred. We say that these works contain the illusion of motion.

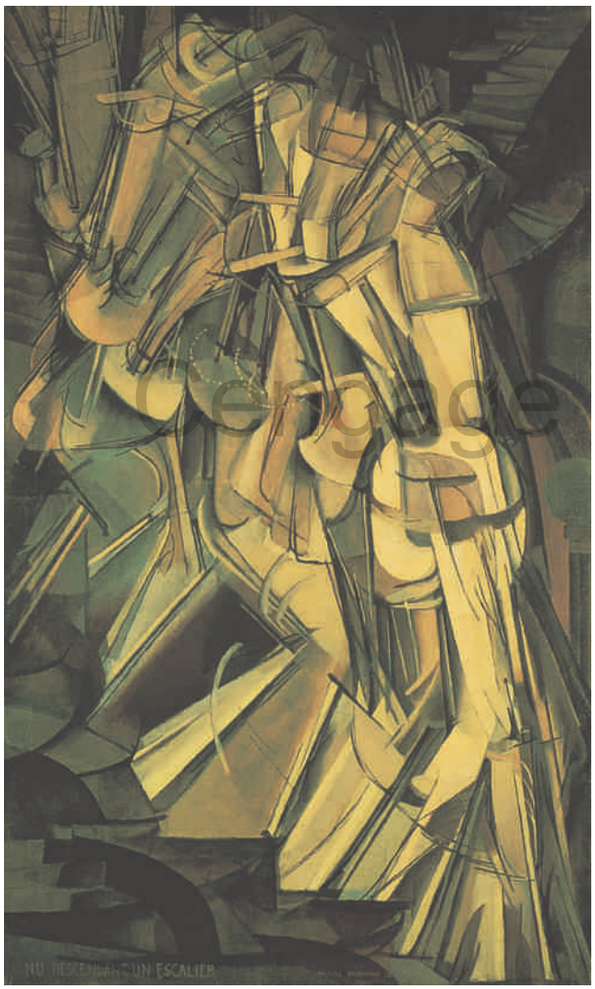
Early experiments with photography provided an illusion of the figure in motion through the method of rapid multiple exposures. In his *Man Pole Vaulting* (Fig. **2-74**), Thomas Eakins—better known for his paintings—used photo sequences to study the movement of the human



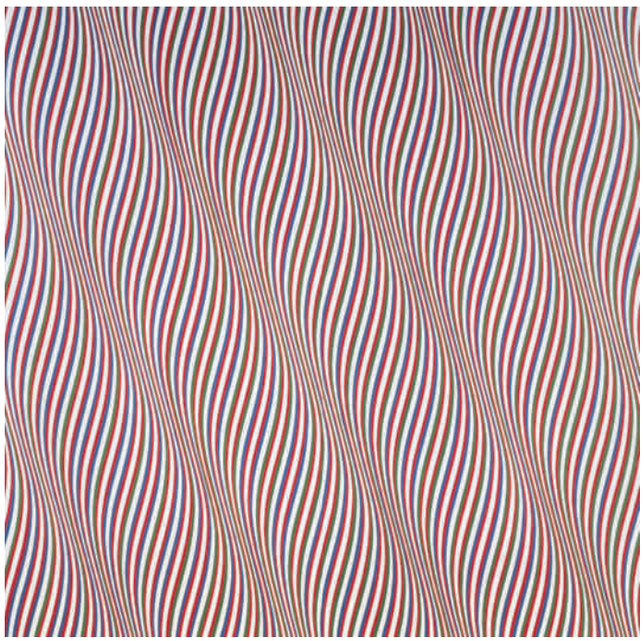
2-74 THOMAS EAKINS.
Man Pole Vaulting (c. 1884).
Photograph.
Courtesy of the Metropolitan Museum of Art. Gift of Charles Bregler, 1941 (41.142.11). Copy photograph ©The Metropolitan Museum of Art, New York.

body. In the wake of these experiments, several artists created the illusion of motion by applying the visual results of multiple-exposure photography to their paintings.

Marcel Duchamp's *Nude Descending a Staircase #2* (Fig. **2-75**) in effect creates multiple exposures of a machine-tooled figure walking down a flight of stairs. The overlapping of shapes and the repetition of linear patterns blur the contours of the figure. Even though an unkind critic labeled the Duchamp painting "an explosion in a shingle factory," it symbolized the dynamism of the modern machine era.



2-75 MARCEL DUCHAMP.
Nude Descending a Staircase #2 (1912).
Oil on canvas. 58" × 35".
Philadelphia Museum of Art, Louise and Walter Arensberg Collection. Image ©The Philadelphia Museum of Art/Art Resource, NY. ©2009 Artist Rights Society (ARS), New York/ADAGP, Paris/ Succession Marcel Duchamp.



2-76 BRIDGET RILEY.
Gala (1974).
Acrylic on canvas. 5' 2¾" square.

The movement of the 1960s and 1970s known as **Op Art** was based on creating optical sensations of movement through the repetition and manipulation of color, shape, and line. In kinetic sculpture, movement is real, whether activated by currents of air or motors. In Op Art, bold and apparently vibrating lines and colors create the illusion of movement. Bridget Riley's *Gala* (Fig. **2-76**) is composed of a series of curved lines that change in thickness and proximity to one another. These changes seem to suggest waves, but they also create a powerful illusion of rippling movement. Complementary red and green colors also contribute to the illusion of vibration. When we look at a color for an extended period of time, we tend to perceive its **afterimage**. Red is the afterimage of green, and vice versa. Therefore, there seems to be a pulsating in Riley's selection of color as well as in the tendency of the eye to perceive the lines as rippling.

If the visual elements are considered the basic vocabulary of art, principles of design might be viewed as the grammar of art. Artists use principles of design to combine the visual elements into compositions. In art, as in life, this "language" is idiosyncratic to the individual.